Manitoba

Annual Report 1984 - 85

Agriculture

Manitoba

Minister of Agriculture

Room 165
Legislative Building
Winnipeg, Manitoba, CANADA
R3C 0V8

To Her Honour,
Pearl McGonigal,
Lieutenant Governor for the Province of Manitoba

Your Honour:

I have the honour to submit herewith the Report of the Department of Agriculture for the period April 1, 1984 to March 31, 1985.

Your obedient servant,

Bill Uruski,
Minister of Agriculture

Manitoba

Deputy Minister of Agriculture

Winnipeg, Manitoba, CANADA
R3C 0V8

Honourable Bill Uruski
Minister of Agriculture
Province of Manitoba

Sir:

It is my pleasure to present the annual report of the Manitoba Department of Agriculture for the twelve month period ending March 31, 1985.

Respectfully submitted,

G.J. Gartner
Deputy Minister

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Manitoba Agriculture

Executive and Directors

April 1, 1984 to March 31, 1985

Executive

Honourable Bill Uruski, Minister

G. J. Gartner, Deputy Minister

T. L. Pringle, Assistant Deputy Minister
Agricultural Development and
Marketing Division

C. C. Cranston, Assistant Deputy Minister
Farm and Rural Development Division

G. J. Lacomy, Assistant Deputy Minister
Management and Operations Division

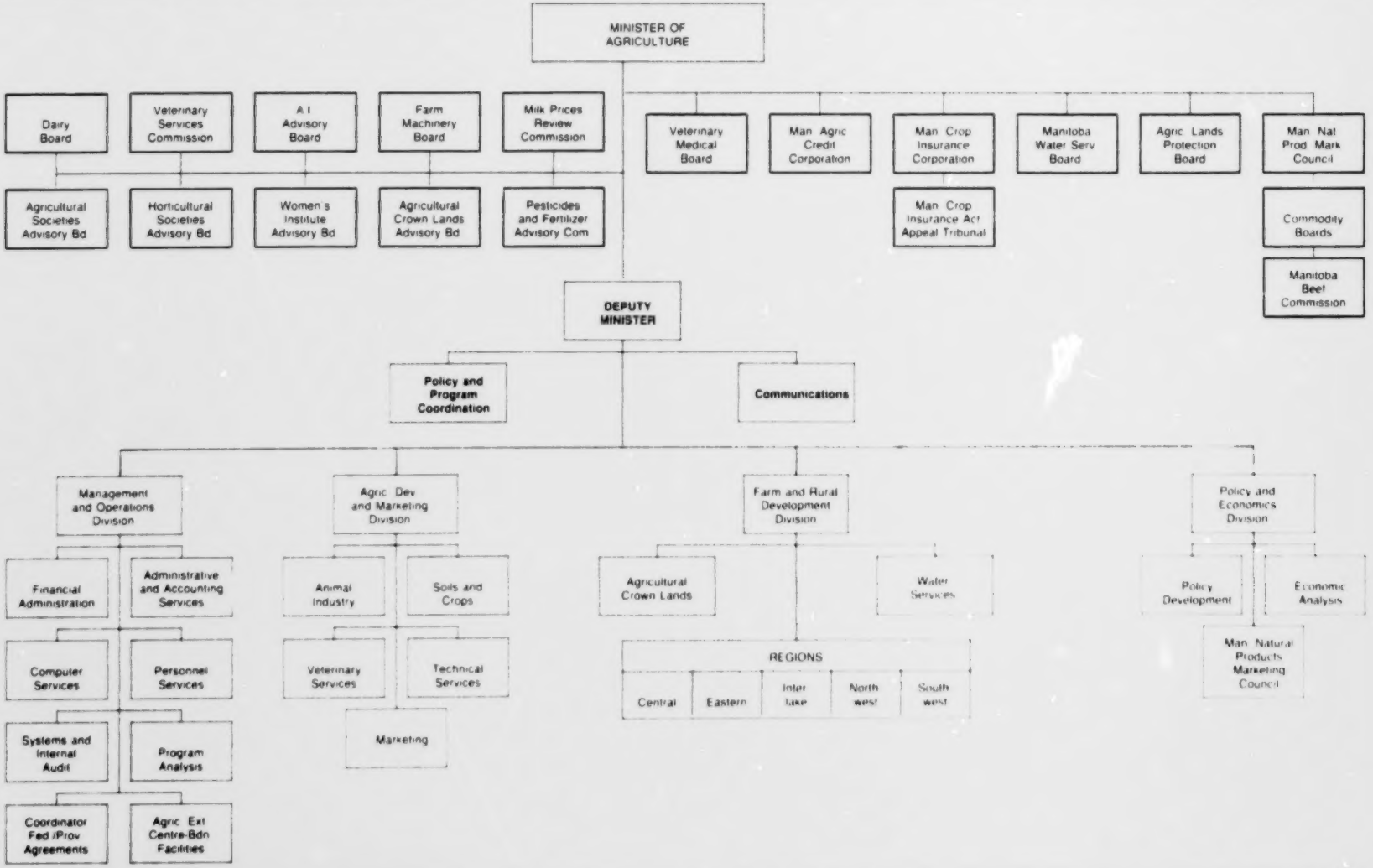
C. Lee, Assistant Deputy Minister
Policy and Economics Division

B. Dryburgh, Policy and Program
Coordinator

Directors

Administrative and Accounting Services -
R. L. Baseraba
Agricultural Crown Lands — J. L. Neabel
Animal Industry — F. P. Baker
Communications — V. E. McNair
Policy Development —
Economic Analysis —
Marketing — A. E. Gascoigne
Personnel Services — D. H. Burch
Soils and Crops — G. D. Webster
Technical Services & Training — R. M. Deveson
Veterinary Services — J. A. McPhedran
Manitoba Natural Products Marketing Council —
G. H. MacKenzie
Manitoba Farm Lands Ownership Board — R. Loeb
Manitoba Water Services Board — E. W. Griffin
Central — B. F. Manning
Eastern — D. I. Donaghy
Interlake — A. T. Dickson
Northwest — R. Chychota
Southwest — W. Digby

Organization Chart — Manitoba Agriculture



General Administration

Manitoba Natural Products Marketing Council

The Manitoba Natural Products Marketing Council continues to be responsible for the administration of the Natural Products Marketing Act and the supervision of the following commodity marketing boards and commissions operating in 1984/85:

The Manitoba Beef Commission
The Manitoba Chicken Broiler Producers' Marketing Board
The Manitoba Egg Producers' Marketing Board
The Manitoba Fluid Milk Commission
The Manitoba Honey Board
The Manitoba Hog Producers' Marketing Board
The Manitoba Milk Producers' Marketing Board
The Manitoba Turkey Producers' Marketing Board
The Manitoba Vegetable Producers' Marketing Board

The Manitoba Natural Products Marketing Council's principle function of supervision was attained through regular meetings with representatives of the marketing boards and commissions, and a continuous perusal of minutes, financial statements and prior approval of various amendments to Quota Orders, Administration By-Laws and Levy Regulations. Council has been assured that the marketing boards and commissions continued to operate in accordance with the authorities prescribed in their marketing plans under the Natural Products Marketing Act.

The Council convened 27 regular meetings, the majority of which were attended by representatives of the marketing boards and commissions to discuss policies, propose amendments, as well as producers wishing to appeal decisions of the marketing boards and commissions.

The Council did approve two marketing plans, one for the Manitoba Milk Producers' Marketing Board and the other for the Manitoba Broiler Hatching Egg Commission. The Manitoba Milk Producers' Marketing Board's plan re-organized a previous plan to more clearly state the authority and limitations on authority, as well as to formalize a number of developed policies into regulations.

The Manitoba Broiler Hatching Egg Producers' Marketing Plan was in response to a request from producers and the hatcheries to establish a commission within the province for broiler hatching eggs.

Council approved a number of amendments to existing Quota Orders of the marketing boards. Amendments to the Manitoba Egg Producers' Marketing Board provided for additional methods of transferring quota as well as raising the utilization levels. The Laying Hen Penalty Regulation was also amended to allow the Board to impose a penalty on producers who kept or raised more than 99 laying hens after February 26th, 1985. Discussions were initiated with the Manitoba Chicken Broiler Producers' Marketing Board respecting the possibility of changing the quota allocations to an absolute poundage (kilogram) basis, rather than on a square foot basis. These discussions were precipitated by the Board's unilateral action to shorten the cycle lengths, effectively allowing every producer, regardless of size, an increase in their quota.

A considerable amount of Council's activity centered around a revised Quota Order for the Manitoba Milk Producers' Marketing Board. The majority of the Order's content was agreed upon, but the central issue of allowing quotas to have value remained unresolved. The Board's preference to operate a quota exchange similar to that in other provinces was rejected by Council. The Council also approved a number of changes to the various Boards' Administration By-Laws. In particular, conflict of interest guidelines were incorporated into the By-Laws of the Manitoba Chicken Broiler Producers' Marketing Board, the Manitoba Turkey Producers' Marketing Board and the Manitoba Milk Producers' Marketing Board. In addition to the conflict of interest changes to the Manitoba Milk Producers' Marketing Board's Administration By-Law, amendments transferring the responsibility for the elections from the Council to the Board were approved.

Prior to these amendments, Council did undertake three district elections for the Manitoba Milk Producers' Marketing Board resulting in one new member being declared elected, one incumbent by acclamation and one incumbent being returned.

Under the Act, the Manitoba Marketing Council is required to hear appeals by persons affected by a decision, directive or order made or given by a marketing board or commission. Council convened 20 such appeals and rendered decisions to dismiss 16 and grant four appeals. Four appeals were heard against the Manitoba Beef Commission, with three being dismissed, eight against the Manitoba Milk Producers' Marketing Board with seven being dismissed, five against the Manitoba Egg Producers' Marketing Board with four being dismissed and three against the Manitoba Turkey Producers' Marketing Board with two being dismissed.

Council did meet with representatives of the Manitoba Food Wholesalers' Association to review the problems associated with the marketing of potatoes outside the Manitoba Vegetable Producers' Marketing Board. Council met with representatives of various hatcheries and poultry processors to discuss the termination of quotas held by non-farm corporations. One issue which remained foremost within Council was a turkey breeder policy and discussions continued with the Manitoba Turkey Producers' Marketing Board.

The Natural Products Marketing Council continued with its policy of preventative enforcement and no court actions were initiated during this year.

Management Services

Administrative and Accounting

The Branch provides professional management, accounting and administrative support services to Departmental programs. Major services provided include:

- financial analysis
- general management consultation
- system design and implementation
- payment, documentation and expenditure recording
- revenue collection, control and analysis
- co-ordination of summer student recruitment. departmental records management, office space and equipment administration, advertising, office equipment and telecommunication service.

Major activities during the year included:

— processing of 24,038 payment documents totalling $59,724,329.42 and issuing 1,500 receipts for $8,058,843.73 of revenue collected.

— co-ordination, review and initiation of 1,808 requisitions for office supplies, advertising, office equipment.

— contract preparation for the Agro-Man Federal/Provincial program continued to occur including preparation of five evaluation contracts.

— 91 summer students were hired representing 55 S.T.E.P. for 732 staff weeks and 36 Budget for 546 staff weeks.

— installation of three word processing units to complement existing centers within the Department.

— revision of departmental signing authorities to comply with improved documentation including the agencies associated with the Ministry.

In general, the fiscal year 1984/85 saw continued involvement of our service areas with the program areas to greater facilitate program delivery and avoid future administrative problems.

Internal Audit and Systems

Internal Audit and Systems has the responsibility of undertaking reviews of existing and proposed financial and procedural systems of the Department and related agencies. In addition, this position functions as a resource to senior management and offers advice in formulating policies which will ensure effective and efficient program delivery.

Activities for the year included:

— reviews of several program areas which resulted in making recommendations to improve operations in an economic, efficient and effective manner.

— an ongoing analysis of budget presentations of the Prairie Agricultural Machinery Institute and the Keystone Centre.

— involvement on various Committees and Boards to ensure program policies of the Department and central agencies of the Government were adhered to.

— filling the position of Acting Director, Finance and Administration of the Manitoba Agricultural Credit Corporation from April 15, 1984 to December 10, 1984.

Financial Administration

Financial Administration provided support to all divisions of the Department. Activity centred on four major areas: annual estimates, sessional notes, cash flows and supplementary estimates.

The Department's annual estimates for the 1985-86 fiscal year were compiled through close cooperation with each director and presented to the Minister and Executive for review before Cabinet presentation.

Sessional notes, describing the budget details for discussion by the Minister in the Legislature were prepared along with financial details at the appropriation level.

Continued emphasis was placed on estimating the monthly cash flow of expenditures and revenue at the program level for more effective reporting.

Revised and supplementary estimates for the 1984-85 fiscal year were compiled for unforseen and emergency expenditures.

Financial reports, expenditure codes, unique codes and other related matters were developed.

Personnel Services

Personnel Services provided advisory assistance to management and staff on the recruitment and selection of employees, wage and salary administration, employee relations and staff development and training.

Within the Department, Personnel Services concentrated their training and development efforts in the planning and development of a "Management Update" program to enhance management skills at all levels of the Department. Within the Manitoba Crop Insurance Corporation, Manitoba Agricultural Credit Corporation and Manitoba Beef Commission efforts continued in the area of organizational development as they solidified their efforts to meet clients' needs.

Manitoba Department of Agriculture

Expenditure Summary By Appropriation

Year Ended March 31, 1985

Appro. No.	Service	1984/85 Actual ($)	Estimate ($)	Variance ($)	Explanation Number
03-1	Administration and Finance				
	(a) Minister's Salary	18,111	19,600	(1,489)	
	(b) Executive Support				
	Salaries	215,108	245,600	(30,492)	
	Other Expenditures	129,976	116,000	13,976	
	Policy Studies	73,660	175,000	(101,340)	1
	(c) Communications Branch				
	Salaries	283,553	298,800	(15,247)	
	Other Expenditures	309,104	346,200	(37,096)	
	(d) Financial and Administrative Services				
	Salaries	580,502	674,900	(94,398)	
	Other Expenditures	53,889	70,100	(16,211)	2
	(e) Computer Services				
	Salaries	149,016	152,100	(3,084)	
	Other Expenditures	47,386	46,300	1,086	
	(f) Personnel Services				
	Salaries	164,832	176,000	(11,168)	
	Other Expenditures	17,349	21,400	(4,051)	
	(g) Program Analysis				
	Salaries	162,455	217,000	(54,545)	3
	Other Expenditures	12,522	14,100	(1,578)	
	Total 03-1	2,217,463	2,573,100	(355,637)	
03-2	Manitoba Crop Insurance Corporation				
	(a) Administration	4,042,597	4,044,400	(1,803)	
	(b) Canada-Manitoba Waterfowl Damage Compensation Agreement	98,125	300,000	(201,875)	4
	Total 03-2	4,140,722	4,344,400	(203,678)	
03-3	Manitoba Agricultural Credit Corporation	12,503,976	8,116,000	4,387,976	5

Manitoba Department of Agriculture

Expenditure Summary By Appropriation

Year Ended March 31, 1985 (Continued)

Appro. No.	Service	1984/85 Actual ($)	Estimate ($)	Variance ($)	Explanation Number
03-4	Agricultural Development and Marketing Division				
	(a) Administration				
	Salaries	78,763	79,100	(337)	
	Other Expenditures	6,422	6,300	122	
	(b) Animal Industry Branch				
	Salaries	1,467,853	1,664,500	(196,647)	3
	Other Expenditures	631,556	707,200	(75,644)	
	(c) Veterinary Services Branch				
	Salaries	1,244,783	1,276,400	(31,617)	
	Other Expenditures	952,779	911,000	41,779	
	(d) Soils and Crops Branch				
	Salaries	1,767,443	1,801,100	(33,657)	
	Other Expenditures	1,028,008	1,148,600	(120,592)	6
	Northern Development Agreement — Provincial				
	Salaries	45,685	46,000	(315)	
	Other Expenditures	49,762	64,600	(14,838)	7
	(e) Technical Services and Training Branch				
	Salaries	1,237,873	1,383,000	(145,127)	3
	Other Expenditures	1,098,001	1,210,100	(112,099)	
	Agricultural Societies	663,108	689,800	(26,692)	
	Northern Development Agreement Canada-Manitoba				
	Salaries	83,810	84,000	(190)	
	Other Expenditures	39,690	44,100	(4,410)	
	Less: Recoverable from Northern Affairs	(123,500)	(128,100)	4,600	
	(f) Marketing Branch				
	Salaries	244,052	285,500	(41,448)	
	Other Expenditures	223,454	227,400	(3,946)	
	Total 03-4	10,739,542	11,500,600	(761,058)	
03-5	Farm and Rural Development Division				
	(a) Administration				
	Salaries	78,267	78,600	(333)	
	Other Expenditures	7,729	4,800	2,929	8
	(b) Northwest Region				
	Salaries	1,175,644	1,192,800	(17,156)	
	Other Expenditures	331,640	377,500	(45,860)	
	(c) Southwest Region				
	Salaries	1,365,846	1,521,800	(155,954)	3
	Other Expenditures	287,177	342,400	(55,223)	

Manitoba Department of Agriculture

Expenditure Summary By Appropriation

Year Ended March 31, 1985 (Continued)

Appro. No.	Service	1984/85 Actual ($)	Estimate ($)	Variance ($)	Explanation Number
	(d) Central Region				
	Salaries	1,489,894	1,525,100	(35,206)	
	Other Expenditures	325,799	342,100	(16,301)	
	(e) Eastern Region				
	Salaries	914,827	961,000	(46,173)	
	Other Expenditures	229,859	252,300	(22,441)	
	(f) Interlake Region				
	Salaries	1,002,233	1,043,600	(41,367)	
	Other Expenditures	309,160	297,600	11,560	
	(g) Manitoba Water Services Board				
	Salaries	1,121,841	1,159,700	(37,859)	
	Other Expenditures	478,880	528,700	(49,820)	
	(h) Agricultural Crown Lands Branch				
	Salaries	1,072,852	1,215,900	(143,048)	3
	Other Expenditures	1,016,033	1,232,200	(216,167)	9
	Total 03-5	11,207,681	12,076,100	(868,419)	
03-6	Policy and Economics Division				
	(a) Administration				
	Salaries	42,964	79,400	(36,436)	3
	Other Expenditures	7,626	8,900	(1,274)	
	(b) Policy Development Branch				
	Salaries	182,184	244,500	(62,316)	3
	Other Expenditures	56,351	68,300	(11,949)	
	(c) Economic Analysis Branch				
	Salaries	264,762	385,500	(120,738)	3
	Other Expenditures	36,886	47,000	(10,114)	10
	(d) Manitoba Natural Products Marketing Council				
	Salaries	135,562	146,200	(10,638)	
	Other Expenditures	43,717	43,700	17	
	(e) Milk Prices Review Commission	45,600	45,600	—	
	(f) Manitoba Farm Lands Ownership Board				
	Salaries	95,340	144,200	(48,860)	3
	Other Expenditures	25,553	33,200	(7,647)	10
	(g) Agricultural Research Grant (University of Manitoba)	875,500	875,500	—	
	Total 03-6	1,812,045	2,122,000	(309,955)	

Manitoba Department of Agriculture

Expenditure Summary By Appropriation

Year Ended March 31, 1985 (Continued)

Appro. No.	Service	1984/85 Actual ($)	Estimate ($)	Variance ($)	Explanation Number
03-7	Canada-Manitoba Value-Added Crops Production Agreement	1,402,235	1,694,700	(292,465)	11
03-8	Income Insurance Fund	6,265,260	7,062,000	(796,740)	12
03-9	Drugs and Semen Purchases	4,431,148	4,662,500	(231,352)	
03-10	Expenditures Related to Capital Assets (a) Capital Grants	3,004,604	3,920,000	(915,396)	13
03-12	Livestock Drought	1,999,653	—	1,999,653	14
	Total 03 — Department	59,724,329	58,071,400	1,652,929	

Explanatory Notes

For Expenditure by Appropriation Summary

Year Ended March 31, 1985

Explanation Number

1. Several studies that were anticipated to be carried out did not materialize. Staff carried out some of the required economic background work.
2. Purchase of computer equipment was planned for 1984/85 but was delayed pending further studies.
3. Reflects unused salary funds due to temporary staff vacancies.
4. Incidence of waterfowl damage to crops was not as high as expected.
5. Interest Rate Reduction Program introduced to decrease interest rates on loans to 8% for 1984/85.
6. Climatic conditions affected activities resulting in a lower number of samples submitted for analysis.
7. The general economic slow-down has reduced the demand for agricultural development in the North.
8. Increased travel and related costs associated with the Assistant Deputy Minister's office.
9. Unused funding under Crown Lands Improvement Program. Demand from clients was reduced and the early spring thaw prevented clients from completing some of the land clearing planned.
10. Lower travel and related costs due to staff vacancies.
11. A number of projects were phased-down due to the termination of the Value-Added Crops Production Agreement in 1985/86.
12. Provincial premium contributions under the Manitoba Beef Stabilization and Marketing Plan were lower than expected due to unfavourable market prices and lower than anticipated cattle volume resulting in unused funds of $1,273,400. This amount was off set by increased interest costs on capital advances under The Manitoba Hog Income Stabilization Plan.
13. Delays in certain projects under the Sewer and Water Program resulted in lower grant pay-outs.
14. Assistance to livestock producers in 1984/85 was necessary due to drought conditions.

Computer Services

This branch is responsible for maintaining, enhancing and developing computer management systems that assist in efficient and effective operation of departmental programs.

In addition to maintaining existing systems, studies were initiated to evaluate the operations at Veterinary Services Branch, Water Services Branch, Manitoba Beef Commission and Manitoba Crop Insurance Corporation. A mini computer was acquired by Veterinary Services for which software is currently being written.

Many micro computers were added to the provincial network this past year. This equipment is being used primarily for regional extension and research, although word processing and record keeping is being added as an additional function by administrative support staff.

Computer awareness, group and one-on-one training has become a major activity of branch staff as most departmental employees are becoming computer users.

Program Analysis

Program analysis for the year centered around four major areas: 1. assisting individual staff, branches or regions and divisions to evaluate the efficiency and effectiveness of departmental programs and activities; 2. cooperating with the financial administrator, departmental directors and managers in preparing budget estimates, revenue expectations and financial control for departmental and government review; 3. providing departmental management with specific program activity reviews and recommendations; 4. cooperating with the federal-provincial coordinator with respect to planning and development of Agri-Food Development Agreement projects and activities and evaluation of the Value-Added Crops Production (Agro-Man) Agreement.

Modifications were completed which improved the communications within the planning and management reporting system. Emphasis continued to be placed on measurement of activity results.

Close liaison was maintained with directors and program managers for development and program information support of the departmental budget estimates and to assist directors in maintaining budget control.

A summary of Manitoba Agriculture Policies and Programs was brought up to date and made available to staff and management. Also, an update was completed on the "Catalogue of Government Grants Available to Municipalities".

Terms of reference were developed in cooperation with the federal-provincial coordinator for evaluation of specific Agro-Man Agreement projects. The Agri-Food Development Agreement management system was developed in cooperation with Agriculture Canada. Development of project outlines included the following: (a) Crop Production Technology Transfer; (b) Livestock and Forage Production Technology Transfer; (c) Farm Business Groups; (d) Farmer Educational Conferences; (e) Farm Family Seminars; (f) Electronic Support Services; and (g) Agreement Administration.

All projects under the Agri-Food Development Agreement contain an evaluation procedure so that results may be determined.

Agricultural Research

University of Manitoba

During the fiscal year, Manitoba Agriculture provided a grant of $875,500 to the University of Manitoba in support of the University's agricultural research program. The grant was used for the development and maintenance of the University's central research station at Glenlea. Funds were used, as well, to provide operational support for research projects carried out in all major disciplines, including agricultural economics and farm management, agricultural engineering, animal science, entomology, food science, plant science and soil science.

Manitoba Agricultural Services Coordinating Committee (MASCC)

Staff from the Department participated in the activities of the Manitoba Agricultural Services Coordinating Committee (MASCC). MASCC is an advisory committee, which recommends on methds of improving the quality of agricultural services provided to the farmers and others in the agricultural industry. The Committee is chaired by the Deputy Minister of Manitoba Agriculture, and its membership includes representatives from the University of Manitoba, Agriculture Canada and Manitoba Agriculture. Input into formulation of recommendations is also provided by farmers and representatives from agri-business.

In 1984-85, MASCC approved recommendations pertaining to both research and to non-research development. Recommendations of national significance were forwarded to the Canadian Agricultural Services Coordinating Committee (CASCC). Those of primarily provincial significance were directed to provincial agencies, including the Department of Agriculture, for consideration and implementation.

General Support Services

PAMI

The Prairie Agricultural Machinery Institute is a joint venture of the provinces of Manitoba, Saskatchewan and Alberta. It was established in 1974 to evaluate farm machinery and to carry out development work to improve the design of farm machinery on the prairies. The Institute has facilities at Humboldt, Saskatchewan, Lethbridge, Alberta and Portage la Prairie, Manitoba.

All test reports published by the Institute are provided to subscribers at a cost of $5 per year or $20 for five years. Individual test reports are available at no charge upon request from the Prairie Agricultural Machinery Institute, P.O. Box 1900, Humboldt, Sask. S0K 2A0.

The government of Manitoba made a grant of $489,400 to PAMI for the year 1984.

Manitoba Farm Machinery Board

The Manitoba Farm Machinery Board administers the Manitoba Farm Machinery and Equipment Act. In the course of administering the Act, the Board becomes involved in all phases of the Agricultural Implements Industry — producer — dealer — manufacturer — distributor.

As the Board considers the Act consumer legislation, their prime concerns are:

— when called upon, to investigate situations where farm machinery fails to perform its intended function.

— providing assistance in the sourcing of replacement repair parts.

— passing judgement on applications for leave to repossess and offer financial counselling to producers in danger of having equipment repossessed.

— resolving disputes arising from the application of statute warranty as provided by the Act.

With the heavy commitments to farm machinery, both in capital cost and field use, the board's policies and programs are directed to improve the quality of service available to producers.

Repossession — As required by the Act, lenders financing by means of a lien note submitted 132 applications for leave to repossess, a substantial reduction from the 209 last year. This reduction was indicative of Manitoba farmers' determination to consolidate their financial position.

Under direction from the Board, the Administrative Staff assisted producers who were experiencing financial difficulties, by means of financial counselling and by setting out cash flows with debit serving capabilities. This was designed to enable a producer to retain his production capacity. Of particular importance is staff's assistance in negotiating a re-payment schedule compatible with the ability to pay.

The incidents of machinery being returned to the leinholder remained constant at 25 percent, with 75 percent of the applications resolved to the mutual satisfaction of all concerned.

Complaints — The Board received, investigated and resolved 121 registered complaints involving:

- rejection filed on farm machines that allegedly failed to perform their intended function.
- mechanical failure that occurred after the expiration of statute warranty.
- sourcing of replacement parts not readily available.
- counselling offered on problems related to the purchase of used equipment, although used farm machinery is exempt from the Act.

Licences — As of March 31, 1985, the Board had in effect 445 dealer licences and 160 vendor licences. Prior to a licence being issued the required "Penal Bond" must be in place. The Board offers a bonding service through the Manitoba Farm Machinery and Equipment Act Fund. Under this fund 100 dealer and 39 vendor bonds were issued.

Dealer Inspection — During this fiscal period the Board's Inspector completed 286 dealer inspections. This ongoing program gives the Board an opportunity to discuss with the dealer principal problems related to parts inventory, time necessary for a manufacturer to supply parts and quality of service.

Board Activities — The Manitoba Farm Machinery Board held nine (9) Board meetings, one (1) Credit Committee meeting and thirteen (13) Arbitration meetings during the year. Arbitration meetings were held throughout the Province to resolve complaints and investigate applications for leave to repossess that require in depth discussion. Staff also met frequently with manufacturers and lenders to discuss topics of mutual concern.

Farm Implement Industry — The Board monitored, on a continuous basis, the rationalization taking place in the industry, both from a manufacturer and dealer standpoint. This was done in order to be constantly abreast of changes that could affect the Manitoba producer. Conditions in the North American agriculture economy have placed the manufacturing industry in a state of transition with mergers, buy-outs and receiverships resulting in many problems.

A reduction in the number of major franchise dealers in the Province is noted. While this creates increased travel in securing replacement parts, the overall parts availability service remains acceptable. Staff continued to offer counsel and provide information on all problems related to farm machinery. There has been a noticeable increase in the number of requests for assistance in matters pertaining to financial contractual disagreements.

Communications

Department communication services continued to be coordinated through the Communications Branch. The varied communication services are designed to support all policies, programs and activities of the department. Direct general support is provided on a daily basis through the mass media. Support services are provided to other staff through print media, audio visual productions and a wide range of instructional and communication aids.

A restructuring of communication services during the year saw all regional communications staff transferred administratively to the Communications Branch. Also, the number of communication positions left in the regions were reduced to two, with the other regional communicator positions transferred to Winnipeg. This restructuring was prompted by a need for increased support on program and policy areas and by a need for closer and continuous communication liaison with department administration.

Communication strategies continued to provide the framework for priority program support. The strategies were developed through close liaison with program managers and proved to be useful in executing planned communication activities on priority areas. Responsibility for each major strategy was specifically assigned to one communications staff member.

Print Services

Press — The weekly issue of a press release packet continued to be the mainstay of the department's press service. During the year 284 releases were issued to over 800 recipients. Farm press and community weekly pick-up continued at a high level. Internal information sheets headed Intercom were issued to all departmental staff on 24 occasions. Specialized press coverage was provided for such major activities as Manitoba Agronomist Conference, Weed Fairs, Hog Days and the Beef '85 homestudy course.

Publications — In producing nearly 300 print projects during the year, the publications section provided services ranging from writing, editing and design, to printing arrangements and distribution. Productions included annual publications, technical bulletins and factsheets. Other print production included the design and printing of forms, letterheads, charts, maps, etc. During the year some 475,000 pieces of print information were distributed.

Audio Visual Services

Radio — The daily farm radio feature "Country Comment" continued to be the major radio service from the department. It was broadcast regularly on 12 stations serving rural Manitoba. Timely agricultural information was provided through that program, while food-related consumer information was provided on "Consumer Update", as supplied by marketing board home economists. Several special radio series were produced, including a 15 item series broadcast in conjunction with Beef '85.

Television — For the ninth winter season the department's weekly TV program "Farmscene" was produced and telecast province-wide on the CKY-TV network. However, the series was reduced to eight programs this year. Program emphasis was placed on the areas of beef production and soil and water management. In addition, regional staff contributed regularly to a regional half-hour program called "Agri Views" produced for the Brandon and Dauphin viewing areas.

Film production — Substantial 16 mm film production was maintained, mostly in support of the department's regular television services. Many of the items shot and edited for the eight half-hour television programs presented during the year were made available in film or video tape form for additional uses. In addition to the TV film, a feature was produced on zero tillage, which later achieved wide distribution.

Graphic Design — Although the department no longer has an illustrator on staff, design services were available through centralized services and communications staff were able to provide client support for such services.

Still Photography — The need for still photography services continued with requirements for television, publications, slide sets, homestudy lessons, displays and for the press service. A significant addition was made to the photo file, which is available to the entire department. During the past year, 17 slide/tape productions were completed for general use.

Audio Visual Library — The Branch's Distribution Centre stocks some 250 films and slide sets for use primarily by staff, community groups and schools. Bookings of these materials during the year totalled 1,130.

Promotion and Advertising

The Communications Branch continued to handle most advertising done on behalf of the whole department, on many special projects and an increasing share of regional advertising. During the year major advertising and promotion activity was carried out on tissue testing, fall soil testing, Manitoba Beef Commission, Hog Days, Weed Fairs, Beef '85 homestudy course, Money Management homestudy course and the annual Outlook Conference.

Beef '85

The Beef '85 course produced this year was the sixth annual homestudy course produced and coordinated by Manitoba Agriculture. A registration of 1,570 indicated a successful course. A follow-up evaluation study showed strong support for the beef course and 81 percent of the respondents stated they would take further courses offered in the homestudy pattern.

Telidon Service

The department maintained its involvement in the Grassroots telidon service through the provision of about 600 pages on the data base and through 22 department offices equipped with receiver terminals. Current information on the data base was updated on a bi-weekly basis.

Regional Communication Services

The substantial reduction part way through the year, in the number of regional communications specialists in place, brought about a change in work emphasis on the part of the two remaining. No longer was it possible to have these specialists do most of the producing. Instead, they worked with the regional staff and coordinated their direct involvement in established media services. An example in the Northwest region saw staff producing their own radio programs under the guidance and co-ordination of the regional communicator.

The regional communication specialists continued to provide an advisory and consultative service to all regional staff on all aspects of communication. In addition, they continued to produce material for mass media use, but in limited amounts following the communications staff reduction. Such services varied from region to region, depending on outlet facilities available. In the western half of the province 26 TV items were produced for the department's Farmscene program and many of these were later broadcast on Brandon and Dauphin TV stations. In the Eastern region weekly radio programs were produced and a number of video productions for local showing.

Regional specialists continued to provide guidance to other staff on staff news columns, radio and television participation, photography techniques, and printing and publishing activities. Each regional communicator continued to be responsible for one priority program communications strategy, as well as being involved in the regional communications strategies.

Other regional communications services included regional advertising, general promotion and public relations related to regional interests and a support to many province-wide projects coordinated by the Communications Branch.

Economic Analysis

Staff of the Economic Analysis Branch compile, analyze and disseminate statistical information for use by producers, other departmental and government staff, students and the agricultural industry. Other areas of Branch involvement include the provision of briefing papers and support to the departmental executive, resource support in the areas of program review, development and evaluation, and market analysis and price forecasting.

Statistics

The Statistics Section's major responsibility was to acquire and provide selected data on Manitoba agriculture. Together with the Analysis Section, assistance was provided in the preparation of final estimates for many of the crop and livestock statistics released by Statistics Canada. Several surveys were conducted by the Section in conjunction with other branches of the Department and Statistics Canada.

During the year, the following publications were prepared and distributed:

- 1983 Yearbook of Manitoba Agriculture
- Monthly Agricultural Conditions Reports
- Weekly Crop Reports
- Statistical reports on farm finances such as receipts, expenses, income value of production, bankruptcies, land values, wages and price indices
- Statistical reports on crop and livestock production
- Reports on corn, vegetables, special crops and herbicides compiled from surveys carried out by the Section.

Analysis

The Analysis Section was responsible for the research and provision of market information, analyses and forecasts for the major agricultural commodities and food. This included supply, demand, price and impact analysis as well as price forecasting. Manitoba Agriculture's Outlook Conference held in January in Brandon and Winnipeg provided a regionalized view of future prospects for the industry. Staff also presented market information and forecasts at 26 producer meetings and at the Brandon Agriculture Canada Research Station, and through 58 media interviews.

The following reports and papers were a sample of those prepared during the year:

- Manitoba Markets Weekly Report, which provides up-to-date market information on crops and livestock.
- State of Manitoba Agriculture paper, which summarizes the current agricultural situation, including an assessment of the impact of agriculture and related industries on the Manitoba economy.
- Paper on "Potential for Manitoba Beef Industry and its Relationship to Other Areas of the Provincial Economy".
- Paper on "Impact of Drought on Manitoba Farm Incomes".
- Paper on "Safflower Market Review".

Policy Development

The Policy Development Branch conducts research, analyzes issues, concerns, problems and trends in agriculture, and assists in the long-range policy and program planning of the Department. These responsibilities include:

- Analysis of conditions and factors affecting the agricultural and rural community.
- Evaluation of Departmental programs and policies and their impact on the agricultural economy.
- Participation in negotiations and discussions pertraining to interdepartmental and intergovernmental projects and agreements.

During the 1984-85 fiscal year major emphasis was placed on:

1) Preparation of a discussion paper on the Western Grain Stabilization Act. A brief on this topic was subsequently prepared and presented to the Standing Committee on Agriculture.
2) Participation with other departments in the preparation of a paper for presentation to the Hall Committee Inquiry into Crow Benefit Payments and the impact paying the Crow benefit to farmers would have on Manitoba agriculture.
3) Participation in the planning and coordination of the Canadian response to the United States Department of Commerce questionnaire regarding hog stabilization.
4) Participation in the federal/provincial task force on farm capital structures and credit requirements. The proposals from this task force were considered at a special federal/provincial meeting of ministers of agriculture.
5) Analysis of the federal discussion paper on agriculture and taxation and preparation of a brief which was presented to the Standing Committee on Finance, Trade and Economic Affairs.
6) Participation in federal/provincial discussions related to the development of a national hatching egg agency.
7) Evaluation of various alternatives for national quota allocations as related to supply managed commodities.
8) Assisting the Water Resources Branch in evaluating the economic effects of selected development projects.
9) Participation in studies with the Department of Natural Resources in regards to Crown land allocation procedures.
10) Analysis of various proposed agricultural resource development and conservation programs under ERDA.
11) Assisting the Crown Lands Branch in land improvement studies.
12) Participation in studies relating to Northern agriculture.
13) Assisting the Water Services Board in the analysis of subsidies for "previously constructed" works.

Manitoba Fluid Milk Commission and Manitoba Milk Prices Review Commission

The major areas of activity of The Manitoba Milk Prices Review Commission during the 1984-85 year included the following:

- setting the minimum and maximum retail price to consumers of fluid milk in Manitoba;
- monitoring and maintaining a producer cost of production formula for fluid milk production; and
- setting the producer price for fluid milk (Class I price).

The Manitoba Fluid Milk Commission was created under The Natural Products Marketing Act in March, 1984. It is responsible for setting the wholesale minimum and maximum prices at which stores and other retailers purchase fluid milk from Manitoba's processors (or dairies) and the prices for fluid milk purchased by independent distributors (or jobbers).

The year 1984-85 marked the return to Manitoba of milk price controls with the establishment of the minimum and maximum retail and wholesale price controls in June, 1984. The Commission had instituted temporary price roll-back action following excessive wholesale and retail price increases affecting the fluid trade in February of 1984. The controls were implemented to stabilize a fluid industry plagued by excessively high rebates (volume discounts), a financially distressed processing trade and overpriced milk to consumers, especially in rural areas.

Since the inception of controls, additional regulatory action was deemed necessary by the Commissions during 1984-85. In late July, 1984, the June, 1984 controls were "fine-tuned" with minor modifications, while in February, 1985, the price to Manitoba's producers for fluid milk was increased with corresponding adjustments in price to the rest of the fluid trade and consumers. The later action had been signalled by the legislated two percent trigger mechanism which governs the cost of production formula used to determine the producer's fluid milk price.

Throughout 1984-85 surveillance of retail prices was maintained on a regular basis in Winnipeg and in rural Manitoba with the assistance of the Women's Institute of Manitoba. While no court actions were necessary, all retail price-related complaints were investigated with the assistance of the Manitoba Natural Products Marketing Council's Inspector.

The Commissions met 16 times during 1984-85 and, in addition, continued discussions with officials and representatives of Manitoba Agriculture, The Manitoba Milk Producers' Marketing Board, the six Manitoba processors, the Manitoba Milk Producers' Co-op Inc., the Canadian Federation of Independent Grocers, the independent milk distributors and jobbers, the Consumer's Association of Canada and many consumers and retailers on an individual basis. Such extensive interaction with the industry was deemed necessary by the Commissions in order to fulfill their combined mandates of a stable, healthy fluid milk industry offering a continuous supply of fluid milk to consumers at reasonable prices.

Marketing

The Marketing Branch is responsible for market development and marketing services for Manitoba's agricultural and food products. This includes providing initiatives in expanding or strengthening domestic and export markets, identifying and developing new markets, devising and implementing efficiencies to improve the marketing system and so benefit Manitoba's producers, consumers and the food industry.

The Branch also provides a resource in response to initiatives from agriculture, agribusiness, marketing boards and producer groups, where such organizations do not have the resources or expertise for professional marketing and market development services.

Ultimately, the Branch is concerned with facilitating the market processes to achieve the optimum benefit to Manitoba agriculture in terms of price, return on investment, continuity and presence in the market place, provincially, nationally and internationally.

In order to meet its broad objectives, the Branch concentrates its involvement in the following types of situations:

- Market development and testing — where potential markets show favorable prospects
- Marketing assistance — when assistance and coordination in marketing is required by appropriate outside groups
- Government to Government negotiations — where government involvement is required in negotiations with other governments
- Promotion of Manitoba grown — promotion aimed at expanding or maintaining consumption and diversification of foods grown and processed in Manitoba.

In the 1984/85 year, staff of the Branch were involved with 22 missions visiting the province. Delegations included government and industry officials from Japan (8 missions), Mexico (2 missions), U.S.A. (3 missions), and one each from New Zealand, China, Korea, Panama, Finland, Russia, Germany, Eastern Canada and Western Canada.

Outgoing foreign missions went to Mexico and Japan on swine breeding stock, to the U.S.A. on pork and processed meats and to attend the American Pork Congress. The Branch also provided assistance to Manitoba food companies participating in the Foodex show in Tokyo. At this show, turkey, chicken, pork, goose and many other Manitoba food products were on display in the Canadian pavilion.

During this mission to Japan, a number of retail stores which were featuring Manitoba turkey were visited. Two container loads of products were sent to Japan for the promotion, and full-colour point-of-sale material was shipped to Japan. These large banners carried the message "Take Home Manitoba Turkey" and were well displayed in the participating Japanese supermarkets.

Working closely with marketing boards and producer associations, the Branch co-ordinated eleven co-operative promotions held throughout the province in Dauphin, Brandon, Steinbach, Portage la Prairie and Winnipeg. These were held in shopping malls and at Exhibitions. In addition, a number of single commodity promotional programs were also undertaken through the retail food trade.

The 11th annual Manitoba Food Products Event was held in September. This Event was launched by the Branch in 1974 and has been a successful promotion each year since. Some 827 in-store promotional kits were supplied to participating retail food stores throughout the province. Each kit contained 14 different commodity banners in full colour. Three and a half million special grocery bags were circulated throughout the province, carrying the message "Take Home Manitoba Grown" and television commercials supported the promotion across the province.

Throughout the year, the Branch provided displays and assisted with staffing at the following trade shows: The Canadian Fruit & Vegetable Wholesalers Convention in Montreal; The American Pork Congress in Indianapolis; The Canadian Western Agribition in Regina; Hog Days in Winnipeg and the Flying Farmers Convention in Winnipeg.

Through various livestock publications, the Branch supported Manitoba's livestock breeding stock industry. Advertisements placed in a Mexican livestock magazine (in Spanish) and in two U.S.A. publications related to Ag. Ex. in Brandon and Agribition in Regina.

The development and production of marketing brochures continues to be of worthwhile assistance to numerous producer groups. This year, assistance of this nature was provided in producing the Manitoba Limousin Breeders' Location Map, brochures on Vegetables, Holsteins, Wild Rice, Honey, U-Pick Strawberries, U-Pick Farms, Nursery & Landscape and Greenhouses. The Manitoba Food Products Directory was up-dated and enlarged, then circulated to head offices of Manitoba retail/wholesale food companies, to suppliers and brokers, the food service industry, schools, universities, consumer groups and to all Canadian Embassies and Consulates around the world.

Marketing staff continued to utilize and recommend the research facilities of the Canadian Food Products Development Centre at Portage la Prairie, as well as the Food Science and Foods and Nutrition Departments of the University of Manitoba, for new product development and testing.

The Manitoba Water Services Board

Municipal Water and Sewage Services

The Manitoba Water Services Board is responsible for four municipal water/sewage programs as outlined above:

1. **Community Water Source Development** — Technical assistance was provided on 53 projects. A total of approximately $121,000 in rebates was paid on 33 projects by The Manitoba Water Services Board to local governments for the development of water sources from which farmers and community residents may haul or pipe water.
2. **Agricultural Area Water Pipeline** — During the past year a total of three proposed pipeline projects were installed, involving a total of 40 miles of pipeline, to provide water to three communities and over 100 farms and rural residences.
3. **Agricultural Community Water and Sewage** — The Manitoba Water Services Board provided technical assistance on four community projects during the past year. Rebates totalling approximately $192,000 were provided to local authorities for four projects undertaken.
4. **Municipal Water and Sewage** — The Manitoba Water Services Board provided assistance on 58 ongoing municipal projects during the past year. Grants totalling approximately $2,615,000 were provided. Eighteen projects were substantially completed during the year.

On-Farm Water Services

1. **Water Source Development** — Technical assistance for farm water source development is available, as required, to solve serious water problems through farm calls and detailed designs. A total of 2,230 requests for technical assistance were dealt with, while financial assistance totalling approximately $118,000 was provided to 126 farmers, to assist in the development of satisfactory water sources which did not qualify for PFRA assistance.
2. **Irrigation** — During the past year, a total of approximately $79,000 was provided to 40 farmers to assist in the development of satisfactory irrigation systems.

Dugout Filling

Equipment rental charges for the past year were $300 for filling normal dugouts where the pumping distance was less than one-half mile and $350 for filling normal sized dugouts where the pumping distance was greater than one-half mile. A total of 319 dugouts were filled, with 238 being filled by The Manitoba Water Services Board equipment and 36 filled with PFRA equipment.

Agronomic, environmental and public health monitoring continued on the Roblin Effluent Irrigation system. The major monitoring contract is with the University of Manitoba with contributions being made by the Departments of Health, Environment and Agriculture.

Dairy

Sales to the Manitoba Milk Producers' Marketing Board and Provincial creameries reached 298.3 million litres, an increase of 0.81 percent from 1983/84. Fluid milk sales were 103.1, unchanged from the previous year. Farm separated cream production was 32.3 million litres milk equivalent, down 5.3 percent. Industrial milk production had the greatest gain, up 2.7 percent to 162.9 million litres.

Farm Cash Receipts — Dairy farm cash receipts including subsidy payments totalled $129.09 million. Payments from the Manitoba Milk Producers' Marketing Board and the creameries reached $118.05 million, comprised of $113.33 million from milk sales and $4.72 million from farm separated cream sales. The price paid to milk producers remained virtually unchanged during 1984, an average of $43.44 per hectolitre. Creamery payments for farm separated cream rose briefly to a high of $4.30 per kilogram, with an average of $4.07 per kilogram.

Subsidy Payments — Subsidies are based on eligible market share quota shipments made within the dairy year. Manitoba Market Share Quota allotment was increased to 6.693 million kilograms butterfat as of August 1, 1984, but was rolled back one percent to 6.642 million kilograms butterfat on January 1, 1985. The subsidy payment remained unchanged at $6.03/hl for milk testing 3.5 percent butterfat. Support price for butter was increased to $4.784 per kilogram, an increase of 7.4 cents/kg. (1.6 percent), and skim milk powder support price increased to $2.85 per kilogram, an increase of 6 cents/kg (2.1 percent), both effective August 1, 1984. Manitoba received $11.4 million in subsidy payments. In-quota levies increased from $5.14/hl to $5.66 commencing February 1, 1985. The over-quota levy set on August 1, 1984 at $34.38 per hectolitre was up from $31.79 set in 1983.

Breeding

Manitoba Agriculture supports two milk recording services, the Dairy Herd Improvement Association (DHIA) and the Owner/Sampler (O/S) program to improve the production performance of dairy cattle in the province. The "Production Dollar Index" (PDI) was again distributed semi-annually to all dairy producers. The report summarizes the most recent production and type information for all proven dairy bulls at Canadian bull studs. Presentations on sire selections and breeding programs were made at producer meetings and four AI courses.

Dairy Herd Improvement Associations (DHIA)

During the calendar year of 1984, the DHIA program membership increased by only five additional members because of a freeze that was imposed on the program. At year end there were 280 active herds on the program, and the established waiting list consisted of 19 dairy producers interested in joining the program. During the year 21 new herds were enrolled and 16 herds discontinued for a net increase of five, bringing the 1984 total to 280 herds. The herds discontinuing service consisted of two herds transferring to ROP, two herds transferring to the Owner/Sampler program, five herds sold out, and seven discontinued for other reasons.

The DHIA grant system remained at $2.00/cow/year and 65 cents per herd mile. This grant is paid directly to the 21 DHI Associations, in proportion to the number of cows tested and the distance travelled. Annual meetings were held by all 21 DHI Associations with milk recording staff attending all meetings. The 23 DHIA supervisors involved attended a one day general group workshop meeting and individual training workshops were held with several DHIA supervisors.

Owner/Sampler

The Owner/Sampler (O/S) program increased by one herd, and also showed increases in the number of cows and production per cow. Eight herds transferred to the DHIA program during the year.

Table 1
Owner/Sampler Summary
(1983-1984)

	1983	1984
Herds on test for 12 months	87	88
New herds on test	27	23
Discontinued herds	22	23
Total herds on test during the year	131	136
Herds on test December 31	109	113
Cows on test December 31	4,603	4,576
Average kg. milk per cow	5,498	5,660
Average kg. fat per cow	187	196
Average BCA milk	112.5	118.2
Average BCA fat	102.1	111.2
Composite BCA	107.2	113.3
Percent of herds on test	9.2	9.7

National Identification Program (NIP)

This program was initiated by the Joint Dairy Breeders Committee (JDBC) in 1972 and used by producers to identify their grade animals. Effective January 1, 1984, the small NIP card was changed to an 8 1/2" x 11" NIP certificate, and provisions were made for the transfer of ownership when a NIP animal is sold. The cost of the NIP application was also increased from

$2.00 to $4.00/certificate, which resulted in a decrease in the number of NIP cards processed in Manitoba during 1984.

The following figures summarize the NIP applications processed in the past six years:

1979 — 1,535	1982 — 2,796
1980 — 1,834	1983 — 3,605
1981 — 2,587	1984 — 2,685

Nutrition

Over 30 percent of the province's dairy producers requested feed analyses and detailed feed recommendations. A series of nutrition workshops emphasizing feeding for production and ration balancing was held. Information on feeding and management of dairy bull calves for pink veal production was provided to a number of producers. Holstein clubs held a number of barn clinics, meetings and tours, covering all areas of dairy management.

The butterfat-protein inversion program was continued. Herd owners were informed on how to correct butterfat problems when they occur.

Marketing — Dairy Breeding Stock

Marketing assistance was provided to the Brown Swiss Association and to private exporters. Marketing staff also worked with a Saskatchewan Government Agency and located Manitoba Holsteins for a Korean order. There were incoming dairy breeding stock missions to Manitoba from Korea and Mexico. Sales were made to Mexico, with documentation and shipping assistance provided by staff.

Department marketing specialists worked with the Manitoba Holstein Association in the preparation of a market information brochure. They also assisted this association with the examination of procurement requirements and quality specifications pursuant to an Asian Development Bank tender for dairy cattle to the Philippines, as well as inquiries received from the USSR, Korea, and Iran. Consultation and advice was provided to a newly formed embryo marketing firm and the Manitoba Research Council, regarding the development of marketing strategies. A Marketing Branch display at the Manitoba Dairy Convention highlighted export opportunities for Manitoba dairy cattle.

Marketing — Veal

Marketing staff provided assistance to a number of veal producers interested in forming an association. The new association is called The Manitoba Light Veal Producers' Association and the Branch provided assistance with organization, marketing strategies, promotional guidance and arranging cutting tests, etc.

Dairy Laboratory

Microbiology — Producer samples and processed dairy products are tested for total bacteria counts, coliform counts and bacterial inhibitors (antibiotics). Tests for added water in raw and finished products are also performed.

For the year, 17,649 total bacteria counts, 3,653 coliform counts, 22,888 tests for inhibitors and 17,352 tests for added water were made. Yeast, mould and proteolytic counts on butter, keeping quality tests and phosphatase tests on fluid milk products and staphylococcus and salmonellae counts on cheese were conducted. In total 87,652 analyses were completed.

Milk Composition — Output in this area increased again this year. The main increase was in the DHIA and Owner/Sampler area. Once again this more than offsets the decline in producer payment samples that continue to be analyzed weekly for milk-fat, protein and lactose. Analysis of all individual cow milk samples submitted under the Owner/Sampler and DHIA programs were conducted monthly. Analyses of processed dairy products were conducted once weekly. In total 228,956 analyses were performed.

Chemistry — Manitoba Agriculture's program of monitoring herd samples for somatic cell levels, to aid in the detection of mastitis, continued. Compositional analysis of various processed products was performed and evaluations of flavor problems in both raw milk and finished dairy products took place. In all, 14,865 analyses were conducted. In addition, 200 litres of 1/ION NaOH, 20 litres indicator and 3 litres. 088N $AgNO_3$ were prepared and standardized for use by the dairy plants.

Processor Services

Inspections of Manitoba's dairy plants and depots took place under this activity. In-depth inspections on industrial plants were conducted in conjunction with Agriculture Canada, while inspections of fluid plants were conducted by Manitoba Agriculture. Follow-up inspections were made where necessary. Six hundred and seventy (670) plant and depot inspections were completed.

Including seminars and meetings, 155 calls were made to plants regarding product quality. There were 2,850 tests for quality and composition of farm separated cream, and 35 bulk wash-up station evaluations conducted. Inspections were made of 10 margarine storage facilities and one margarine manufacturing facility. Random sampling and testing of 24 samples of margarine were conducted. Twenty-five consumer complaints were received, with 15 plant contacts or visits resulting.

Farm and Extension Services

As of March 31, 1985 there were 1,148 milk producers in Manitoba, 35 fewer than at March 31, 1984. Average monthly shipments for this period were 18,875 litres compared to 18,198 litres for the year previous. A total of 3,069 farm visits were made, 950 were a direct service to producers and 2,119 were routine, including visits to new producers and on-farm extension calls. Owner/Sampler routes from two areas in the Province are picked up 10 times per year by Farm Services inspectors.

Inspections and/or appraisals totalling 219 were conducted on milk transports, milk graders and raw milk sample holding facilities. The annual three day milk graders course, along with the four day milk receivers course, were held in November with a total of 16 individuals in attendance. All were successful in passing the courses and licences were issued accordingly. Refresher courses were held in Winnipeg and Brandon for all presently licensed drivers. Staff attendance and/or participation in regional, DHIA, Manpower and Holstein Friesian Association meetings with dairy producers, served to assist in the continued good quality of milk delivered to processing plants. Discussions on milking equipment, sanitation and testing related to mastitis control has helped to lower somatic cell counts for some producers.

In the extension realm all five regions carried out an on-going program with regional dairy producers. The wide range of activities included production meetings, dairy days, dairy barn tours, demonstrations and A.I. refresher courses. Topics dealt with at these events included nutrition, sire selection, heifer selection, use of A.I., dairy facilities, disease control, use of records and other topics. The semi-intensive on-farm dairy consultation program continues to be carried out successfully in the Central Region. This program involves agricultural representatives, farm management specialists, Animal Industry staff and others from the private sector.

All regions reported a rather difficult year for dairy producers, brought about by the general economic conditions, and in some cases, by the drought that limited hay and pasture supplies. These conditions often caused a shift in extension activities, with increasing effort made to assist starting clients and those in most need of management advice. Most often the emphasis was on nutrition and reproduction and breeding.

Most regions also report evidence of higher dollar return per cow for the herds on milk recording programs. This presented a meaningful selling point in encouraging more producers to take part in these programs.

A Dairy Heifer Replacement Project was carried out at Seven Sisters in the Eastern region involving heifers from 20 producers. Evaluation by producers indicated that these "grassland heifers" were some of their top producers and they are now starting to adopt some of the management techniques on their own farms.

Dairy Goats

Goat producers continue to participate in the "official" group testing Owner/Sampler recording program. This program is administered provincially in cooperation with the Canadian Goat Society and Macdonald College, Quebec. Discussions with the East-Man Goat Association, Food Science Department, University of Manitoba and Dairy Section staff were held to evaluate the possibility of developing a goat milk processing facility. Lack of sufficient funds has resulted in the postponement of any further developments. The newsletter "Capri-Lines" was printed and distributed to goat producers on a quarterly basis.

Beef

The beef cattle industry is an important part of Manitoba's agricultural sector, with farm cash receipts representing 40 percent of the total livestock sector, and 14 percent of the total farm cash income. Most regions report that difficult economic times have prompted many beef producers to take steps to improve their efficiency. A large number of producers are enrolled in the Manitoba Beef Stabilization program in an attempt to stabilize their cash flow. Beef producers include dairy operators, cow-calf operators, cow-calf and feedlot operators or feedlot operators. Of Manitoba's 12,000 beef producers, 24 percent are fluid milk or cream shipping operators. Forty-one percent are cow-calf operators, 34 percent are cow-calf and feedlot operators and one percent feedlot operators.

Nutrition

Approximately 550 detailed feed recommendations based on 1,575 feed sample analyses were prepared and sent to beef producers. In addition, follow-up services including farm calls were supplied in response to producer requests.

Breeding

Total efficiency of beef production is very important to producers faced with the present high costs of production. Breeding programs are aimed at increasing total efficiency through genetic improvement and use of current technical information.

Federal-Provincial Record of Performance (ROP)

This program is used by producers as a within-herd evaluation of animal performance. Manitoba Agriculture assists with record coordination, weighing assistance, and farm application of results.

Table 2
Number of Herds and Recorded Weaning Rights (WW) and Yearling Weights (YW)
For 1980-1984

Year	Herds	WW	YW
1980	428	15,621	10,980
1981	375	14,923	10,135
1982	451	18,997	11,206
1983	436	17,933	11,529
1984	394	17,433	10,711

Progeny Proving Program (PPP)

PPP is intended to improve the genetic performance in Manitoba beef herds by selecting the top gaining bulls out of Manitoba's bull test stations and offering semen from the bulls to cooperating herds.

The superior bulls are identified for future use in artificial breeding. As a result, artificial insemination in beef herds has increased. Semen from PPP bulls is also being used at the Douglas Heifer Project and the Gunton Beef Heifer Project. Progeny proofs on PPP test sires are obtained through the National Sire Monitoring Program. The results have been favourable. The majority of bulls have been plus proven for both weaning and yearling weights.

Sons of test bulls returning to the Manitoba Bull Test Station are exhibiting superior gains. In 1984 they indexed four percent higher for average daily gain and three percent higher for weight per day of age. Daughters of test sires are also weaning heavier than average calves.

In 1984, 32 herds and 816 cows were enrolled in PPP. Three new bulls were selected for the program.

Bull Test Stations

The popularity of performance testing bulls continues at seven recognized bull test stations within the province. A total of 892 yearling bulls from those stations completed test, including 66 from the Blond d'Aquitaine, 196 from the Interlake, 56 from the Limousin, 443 from the Manitoba, 39 from the Maine-Anjou, 55 from the Northwest and 55 from Red Power Bull Test Station. Those bulls superior in (growth) performance which also met reproductive standards were offered for sale. A total of 428 superior bulls were sold from all stations. Most of these bulls were purchased by Manitoba breeders and will ultimately improve growth potential in their herds. Manitoba Agriculture encouraged consignors to provide home test data through a $50 per bull incentive grant. This information was made available to potential buyers to enable them to assess the genetic worth of the young sires, with greater accuracy. A total of 427 bulls received the grant wth $21,350.00 awarded to the eligible test stations.

Awards Program

The Beef ROP Awards Program was initiated to recognize outstanding achievement of individual beef producers. The 1984 awards were presented to George and Thelma Boucher, Binscarth, commercial cattle producers, and the Everett and Ron Batho families, Oak Lake, purebred cattle producers. These producers demonstrated the effective use of production and performance records in achieving their breeding goals.

Table 3
Summary Of The Progeny Proving Program (PPP)
1980-1984

Year	No. of Bulls Collected	No. of Bulls Obtaining Proofs	No. of Herds Enrolled	No of Cows Enrolled
1980	3	3	30	734
1981	3	3	37	952
1982	4	3	30	760
1983*	4	1	31	843
1984*	1	—	32	816

* *Insufficient time to generate progeny proofs.*

Branding

Manitoba cattlemen have become increasingly concerned about cattle thefts and other cattle losses. Branding reduces the incidence of theft, and increases the chances of missing animals being returned. The return of one animal more than covers the costs of many years of branding and registration fees. During the year 224 new brands were registered, to bring the total registered cattle and horse brands in Manitoba to 3,826.

Marketing — Beef Breeding Stock

Ongoing marketing and promotional activities were undertaken throughout the year resulting in Hereford and Angus bull sales to Mexico and a Mexican mission to Manitoba. Assistance with documentation, health requirements and transportation was provided on export shipments.

Advertisements on Manitoba livestock were placed in American and Mexican trade publications, promoting Manitoba livestock at Ag. Ex. in Brandon and Agribition in Regina. Staffing assistance was provided to breed associations at these two major Western Canadian Livestock Shows.

The Interlake Beef Cattle Improvement Association was assisted with their first sale at the Gunton Bull Test Station. Assistance was also given in the development and design of the breeding stock marketing section of the Beef Homestudy Course.

The quality of Manitoba beef breeding stock was discussed and promoted with visiting officials from Panama and Ganzu, China.

Extension

Most regions report a slight decrease in beef cattle numbers, but a most notable increase in interest in on-farm or custom finishing. This interest was most evident in the number of inquiries regarding feedlot rations, facilities and general management. A number of new feedlots of various sizes were set up during the year.

All regions carried out an active program of seminars, tours and demonstrations on beef topics, in addition to the on-going individual contacts. Topics ranged from nutrition, herd management and breeding to housing, handling facilities, marketing and herd health.

A number of beef sire evaluation projects were carried out with enough sires failing to gain approval to warrant a continuation of this procedure.

Pregnancy checking is another technique that is proving to be most beneficial to the beef producer. One of the largest projects of this kind has been carried out at Ashern for the last five years, involving 4,000 cows. This program is part of a total herd management review, with discussions held on bull selection, cow rations, nutrition, herd health and breeding. A significant reduction in the number of open cows has been noted each fall during the run of this program.

Agro-Man

The Northwest region carried out two large scale feedlot trials at Swan River and at Ochre River. In the Southwest, three five-year trials were nearing completion. These included the Douglas Heifer Project that involved the demonstration of proper feeding and breeding of yearling heifers. Some 135 producers were directly involved with heifers in the test during the run of the program. The Marco Livestock Improvement Project, involving 70 producers directly, demonstrated the use of a synchronized breeding program using both A.I. and bulls to a wide farm audience through field days and the media. The Rossburn Feedlot Project demonstrated the basic feeding and management techniques required in finishing weanling steers, giving producers a good opportunity to follow steer finishing from weaning to market.

Projects carried out during the year in the Central Region included Ralgo implants for increased rate of gain, Bovaid ear tags for insect control and Ivomec treatments for parasite control. The first two projects showed highly favorable results, but the Ivomec test showed little positive result. Good results were noted in the growing out of 80 heifers in the Interlake's Beef Heifer Growing and Cross-Breeding Project. Sixty-three steers were involved in the feedlot phase of this program.

Similar results were achieved at the Gunton Bull Test Station where 197 bulls from 59 producers resulted in 122 bulls meeting sale eligibility. This project has established a reputation for producing quality stock and it's an encouragement to have most bulls sold to Interlake producers.

Two major beef finishing demonstrations were carried out in the Eastern Region involving two producer groups, the Eastern Grassland Society and SPADA.

Hogs

The hog industry plays an integral role in Manitoba's agricultural economy. In 1984, hog farm cash receipts rose 20.0 percent to 185.7 million dollars or 9.6 percent of total farm cash income, as a result of higher market prices and increased marketings. Including export sales, a record 1.5 million hogs were marketed by Manitoba producers at an average price of $70.09 per cwt. basis the 100 index. The number of registered

producers shipping hogs to the Manitoba Hog Producers' Marketing Board increased 7.6 percent to 3,519 production units. Provincial extension programs are aimed at strengthening the managerial capacity and economic returns of Manitoba swine producers. Emphasis is placed on improving genetic performance, sow productivity, feed efficiency and carcass quality, and also providing farmers with current technical information.

Nutrition

The Provincial Feed Testing Laboratory analyzed approximately 600 feed samples for swine producers. Some 250 comprehensive ration and feeding recommendations were forwarded to producers and follow-up farm calls were made upon request.

Breeding

Manitoba Agriculture offers two swine performance testing programs, the Federal-Provincial Record of Performance (ROP) and the Commercial Hog Improvement Program (CHIP) to improve breeding stock quality, total herd efficiency, and market grades.

Federal-Provincial Record of Performance (ROP)

The Federal-Provincial ROP Program encourages the production and use of quality breeding stock by identifying genetically superior animals and advising breeders on herd culling, replacement selection and total herd efficiency evaluation.

The program resulted in a decrease of 30 percent in the backfat thickness of home-tested boars and gilts between 1974 and 1984. Also, Manitoba's station-tested pigs ranked high in leanness in 1984 compared to other provinces; a complete turnaround from last place a few years ago. Manitoba purebred swine producers evaluated 4,439 animals under the home test and 186 young boars at the Brandon test station in 1984 (Table 4). ROP technician workshops and Provincial Advisory Committee meetings were held throughout the year.

A national computerized sow productivity and management program and a provincial herd health program, designed to classify and further upgrade the health status of Manitoba's swine ROP seedstock herds, were implemented during the year.

Table 4
Swine ROP (Record Of Performance) Summary
1981-1984

Year	No. of Animals	Adjusted Age to 90 kg (Days)	Adjusted Backfat to 90 kg (mm)	Average Daily Gain (kg)	Feed Conversion (kg feed/ kg gain)
MALE STATION TEST (ROP Boar Test Station, Brandon)					
1981	309	151.6	13.8	0.87	2.53
1982	166	151.4	13.9	0.86	2.43
1983	195	153.2	13.1	0.85	2.57
1984	186	148.5	13.9	0.91	2.39
MALES HOME TEST					
1981	1496	169.2	13.5		
1982	1697	170.0	12.9		
1983	1906	167.0	12.8		
1984	1315	167.5	12.3		
FEMALES HOME TEST					
1981	2812	181.5	15.2		
1982	2540	175.7	14.9		
1983	3335	178.6	14.7		
1984	3124	175.6	14.4		

Commercial Hog Improvement Program (CHIP)

CHIP is a performance testing and management record keeping system available to commercial producers. The Department provides an ultrasonic backfat probe service and various record keeping materials and forms. Participants are also provided with ear notchers, farrowing calculators, individual sow charts, sow herd record booklets and factsheets on record keeping. Besides assisting new producers in establishing a record keeping system and interpreting performance information, staff advised on other management practices and new developments in the swine industry. CHIP herds continued their dominant role in provincial market hog quality, by marketing over ten percent more hogs in the 102 index or higher category than the provincial average. This was similar to their advantage achieved in the previous five years.

Table 5
Quality of CHIP And Manitoba Hogs
1980-1984

Percent of Hogs Indexing 102 or Better			
Year	CHIP Average	Manitoba Average	Difference
1980	73.7	59.1	14.6
1981	78.6	65.8	12.8
1982	78.0	67.3	10.7
1983	86.0	73.2	12.8
1984	85.0	74.5	10.5

Swine Artificial Insemination

Training schools were held in the Stonewall and Dauphin areas. The courses offered training and education in reproductive physiology, heat detection, proper time of insemination, insemination technique, semen handling and sire selection.

Extension Activities

The Department provided financial assistance and technical expertise to Manitoba Hog Days, sponsored a province-wide swine seminar and continued the factsheet distribution service. Other activities included commodity group workshops, on-farm consultations, farrowing schools and provision of technical information through factsheets, bulletins, news releases, training aids and other related publications. The quarterly Manitoba Swine Update Newsletter was sent to all registered Manitoba swine producers.

Liaison was maintained and discussions held with agri-business, producer groups and research institutions. Financial and technical support were provided to the newly formed Weanling Improvement Sales and Services Co-operative Ltd. (WISSCO).

WISSCO was established to provide a continuous supply of high quality healthy weanlings through a formal herd health program and to provide an equitable price setting mechanism for weanlings through a bi-weekly tele-auction. WISSCO successfully implemented their marketing system in May and sold 5,048 weanlings through 17 tele-auctions in 1984. The pool price received by suppliers ranged from $1.08 to $1.17 per pound for a 40 lb. weanling.

Manitoba Hog Day

Manitoba Hog Days is the largest swine extension event held in the province and alternates between Winnipeg and Brandon. Activities include producer seminars and a large exhibition hall of commercial displays. Over 1,100 people attended the 1984 meeting in Winnipeg.

Swine Factsheet Service

Subscribers to the service receive factsheets and other publications containing the latest information on swine production and management techniques. A total of 52 publications have been distributed through the service since its inception in 1981. Publications issued during the year included seven new or revised factsheets on ROP, nutrition, herd management and financial planning. Over 900 individuals subscribe to the service, reflecting the strong producer interest in this type of extension medium. As well, complimentary subscriptions are given to all swine 4-H club members and leaders.

Marketing — Swine Breeding Stock

Marketing staff continued to work closely with the Manitoba Swine Breeders Association and their export group to develop export markets. Outgoing missions of staff, accompanied by the Association's representative, went to Mexico and the American Pork Congress in Indianapolis.

Swine breeding missions visiting Manitoba were from Japan, Mexico and Panama, with staff involvement including the coordination of briefing meetings on Manitoba's swine industry, visits to local packing plants, the Manitoba Hog Producers Marketing Board and to commercial and purebred hog operations. With co-ordination and documentation assistance from staff, the Manitoba Swine Breeders Association concluded sales to Japan and Mexico and prepared quotations on order inquiries received from Korea and South East Asia. Continued support was provided to

the Weanling Improvement Sales and Service Co-operative (WISSCO). The quality of Manitoba weanlings has been greatly improved due to higher standards set by this co-operative.

The North-West Swine Breeders Association was assisted in operating their first sale in April 1984. The Manitoba Swine Breeders Association was also assisted in their examination of Asian Development Bank Swine Projects in Burma and Indonesia, for potential marketing opportunities for swine breeding stock. Staff also assisted a Manitoba swine producer make arrangements to host a swine management trainee from Japan, who will spend two years in Manitoba learning on-farm swine husbandry.

Marketing — Pork

Market development and promotional activities were carried out in conjuntion with the Manitoba Hog Producers' Marketing Board and the meat processing industry in Manitoba.

Three missions from Japan visited Manitoba to view our pork industry. One mission also came from California. The Marketing Branch organized and co-ordinated these visits which included tours of meat packing plants, the Manitoba Hog Producers Marketing Board and meetings with senior officials of the Department of Agriculture. As a result of these incoming missions and previous market development activities of the Branch, sales were made to Japan and California.

During a visit to Japan in March, marketing staff visited a large retail food chain that had received their first order of Manitoba pork a few weeks previously. This new customer was highly complimentary and assured that orders would be forthcoming on a regular basis. Samples of Manitoba pork were shipped by the Branch, to potential customers in the U.S.A. and Japan.

Department marketing staff continued to support the hog industry through pork promotional activities in shopping malls, exhibitions, Hog Days and retail stores in Manitoba and in Japan.

Sheep

The sheep industry continues to play an important part in Manitoba's agricultural economy as an alternate income source on many farms. Sheep numbers decreased slightly to total 22.5 thousand head by January 1, 1985, 96 percent of the number for the previous year. Poor prices during 1983 are blamed for this drop. However, the continent-wide shortage of lamb that started in 1984 improved prices somewhat. Despite slightly lower market volumes, cash receipts for lamb and wool in Manitoba increased seven percent, to just over $1.5 million dollars.

The Manitoba Sheep Association and its regional affiliated associations continued to be active in representing producer interests, particularly in areas of extension and market development.

Increasingly, sheep producers are taking advantage of the service of the Provincial Feed Testing Laboratory. Following the analyses, feeding recommendations were made. Subsequent farm visits were also made upon producer request.

Breeding

In 1984, the number of lambs enrolled in the Federal/Provincial Sheep Record of Performance program was 1,460, about the same as in 1983. Largely consisting of those producers producing seed stock or flock replacements, this program has been adapted to be of greater use to commercial producers. The new program, having undergone very successful field trials over the past two years, is to be in place by the fall of 1985.

Extension

The Annual Sheep Seminar in March, 1984 provided sheep producers at all levels of expertise with an excellent opportunity to see just how well the sheep as a species is capable of producing. This was shown to be true in research and in the practical on-farm environment. Many improvements in production technology were also presented.

The predator taste-aversion program was again expanded, largely through the assistance of the regional sheep associations which coordinate the interest locally. Bait-making workshops were again held in two locations in the province and were attended not only by producers, but also by wildlife management specialists from the U.S.

Other extension meetings and field days emphasized general flock management, breeding systems, flock health, nutrition, taste aversion, shearing and lambing-time preparation. Farm calls were a priority of the provincial sheep specialist and the bimonthly publication of "Sheep Sense", the industry newsletter, provided producers with current industry news and production information.

Marketing — Sheep

Slaughter numbers at federally and provincially inspected plants in Manitoba dropped slightly (from 11,073 head in 1983 to 10,835 in 1984). This volume is still more than double the volume of five years ago. Lamb marketing continues to be a major concern of Manitoba producers. During 1984/85, the newly-

formed Manlamb Producers' Co-op Ltd. marketed approximately 750 lambs, with most of these coming from the Westman area. Departmental staff continued to assist in marketing plans and the promotion of sheep products. Promotion was a major activity of the Manitoba Sheep Association and regional associations at fairs and in shopping malls.

Poultry

Poultry activities and regulations have as their objectives:

- Providing services directed at improving production and economic returns to individuals or groups within the poultry industry, by offering management techniques and assistance in development of improved marketing systems.
- Maintenance of quality standards for marketing of eggs and poultry prescribed under the Livestock and Livestock Products Act.
- Control of pullorum, typhoid and other diseases in poultry flocks through the hatchery and hatchery supply flock regulations.
- Improving the availability and acceptance of production technology for hatcheries and hatchery supply flocks.

Nutrition

Recommendations on 400 submitted feed samples were prepared and sent out. In addition, nutritional information involving ration recommendations was supplied in response to requests from producers and feed manufacturers.

Breeding

Broiler breeder operators were assisted by the distribution of a Record of Performance book. Assistance was provided on the use of the book. Records from 23 flocks were processed, summarized and presented to participating producers. News bulletins were issued covering areas of concern to breeders such as management, disease and feeding. Manitoba Agriculture conducts a hatchery monitoring project which involves a thorough examination of hatcheries and eggs in hatcheries. The effectiveness of sanitary procedures of both the hatchery and hatchery supply flock are assessed so that diseases may be detected and treated. Seven hundred microbial plates were taken on site and interpretation of results rendered.

Provision was made so that hatcheries could, if they so desired, carry out a self-monitoring program using the microbial plates. Three hatcheries made use of this offer and used 318 plates at the hatchery level. Hatchery monitoring for breeder flock evaluation was carried out where hatches or portions were examined in detail.

There was increased demand for advisory work with hatcheries again this year. Advice on management, operation and sanitation was provided in detail to three hatcheries.

The Department continued to offer owners of turkey breeding flocks the opportunity to have their turkey toms graded through the collection and examination of turkey semen. This process allows the selection of toms with the greatest fertilizing capacity and the culling of those of poor breeding quality.

Management suggestions accompany participation in this activity. Four flocks were graded, totalling 1,306 tons.

Building and Materials Handling

Staff supplied information on ventilation requirements, light control and building design including efficient feeding, handling and housing facilities. Systems for weighing birds were demonstrated and feed intake control systems scrutinized.

Poultry Health (Regulatory)

Application of the regulations under The Livestock and Livestock Products Act involved pullorum-typhoid testing of all hatchery supply flocks and the inspection of premises. Regulations require that all hatcheries with a 1,000 egg setting capacity or greater be licensed by the department. In addition to the pullorum test, turkeys are tested by blood samples for P.P.L.O. and Salmonella typhimurium. Samples of blood are taken from all chicken breeder flocks and these are tested for Mycoplasma gallisepticum, Mycoplasma synoviae and Infectious Bursal Disease. All turkey breeder flocks are tested periodically to maintain a Mycoplasma meleagridis free status.

Table 6

Hatchery Supply Flock Statistics — Manitoba

April 1, 1984 - March 31, 1985

Flock Type	Number of Flocks	Female Birds
Broilers	37	117,613
Layers	14	48,370
Dual Purpose	22	15,346
Turkey	10	27,780
TOTAL	83	209,109

Disease and Insect Control

Mycoplasma gallisepticum and Mycoplasma synoviae continued to be of concern and a testing program to evaluate their status in broiler breeder flocks was conducted. Infectious Bursal Disease and its effects is another important problem which breeder flock owners face. Blood monitoring was conducted to provide information on vaccination efficiency. Mycoplasma meleagridis free status of turkey breeders appears to have been achieved. Testing programs in support of this status were carried out.

Collection of data concerning Salmonella in turkey breeders flocks continued and involved collecting litter samples for analysis. Infectious bronchitis is reappearing as a problem in poultry production, with an increasing number of flocks showing problems.

Licensing

The Department continued to administer regulations respecting poultry and poultry products under The Livestock and Livestock Products Act. These regulations require the licensing of poultry dealers. In this regard, 27 licenses and nine branch licenses were processed. In addition, 19 hatcheries were also licensed.

Marketing — Poultry

Liaison continues between the two Poultry Marketing Boards, processors and present and potential customers, both in domestic and international markets. Market development activities included the presentation of Manitoba poultry at Foodex, a large trade show held in Tokyo. As well, a promotion of Manitoba "Cold Country" turkey was conducted through a large retail food chain with stores in the Tokyo area and the South/Central area of Japan. During the year, three shipments were made to Japan, mainly containing turkey, but with small quantities of chicken included. Two missions from Japan were hosted in Manitoba where the visitors were welcomed and escorted to the poultry marketing boards and to processing establishments.

In an effort to establish trade with new customers, turkey samples were sent to Japan and samples of geese were sent to U.S.A., Japan, Germany, Switzerland and Hong Kong. This led to subsequent sales from some of these countries. Department staff worked closely with the two poultry marketing boards in promotion projects at exhibitions, fairs and shopping malls throughout the province. In other activities marketing staff initiated discussion with industry representatives, investigating the possibility of establishing a sophisticated deboneing operation in Manitoba, to service domestic and international markets.

Engineering Services — Livestock

Assistance was provided to producers in all facets of engineering related to livestock production. Through the general building plan service operated by the Department, 1,446 standard building plans were distributed. General recommendations on livestock facility requirements were presented in 32 extension presentations to producer meetings. Individual engineering assistance including functional planning, building plan selection for plan development and preparation, provision of structural construction details and specific problem solving was provided through 1,410 contacts and office consultations. Individual plans and drawings were prepared for 415 producers and 14 new general release plans were developed for addition to the standard building plan service. In addition, on-site engineering assistance was provided on 327 building and facility construction projects.

Major emphasis was placed on assisting producers to improve the environment in existing livestock confinement operations. Two hundred and ninety-four on-farm ventilation problems were investigated and solutions developed.

Plans developed for new ventilation system innovations were much in demand. During the year a new ventilation system developed by engineering staff was implemented on more than 200 farms. A ventilation air heat exchanger developed by the department for on-farm fabrication was well received with more than 30 units constructed in the past year. Field and laboratory heat exchanger testing was also conducted to aid two local heat exchanger manufacturers in product development.

Detailed monitoring of ventilation system performance was conducted in nine facilities to evaluate common problems and potential improvements. Livestock building ventilation system design and management was the subject of 13 extension presentations at producer meetings.

Engineering assistance was provided to 19 livestock and ventilation equipment manufacturers and building contractors on specific equipment and structural design problems.

Feed Testing Laboratory

The Feed Analysis Laboratory serves the Manitoba livestock industry by assisting livestock operations through improved nutritional programs for farm animals.

The laboratory analyzes feed samples submitted by livestock producers, feed companies, department staff

and others. Chemical analyses are forwarded to nutritionists for interpretation and comment.

For the year, the laboratory analyzed 546 samples of grain, 2,159 forage samples, 607 complete feed and 2,246 unclassified samples, for a total of 5,558 samples. These samples were tested by 20,945 analyses.

Animal Nutritional Services

This service ensures that producers and owners of all species of animals have available the most up-to-date technical information on nutrition and nutritional practices. Detailed and readily interpreted feeding recommendations are provided in response to results of feed analysis. Modern, efficient nutritional practices to support farmers in maximizing their returns are recommended. Preventative management and humane treatment of animals is also encouraged.

For the year, approximately 1,575 feeding recommendations were made based on 3,500 feeds tested. A rapidly increasing percentage of producers are recognizing the value of using this nutritional service in developing their total feeding program. The service this year has been increasingly popular with dairy producers. On a commodity basis, recommendations made were: beef 45 percent, dairy 32 percent, swine 21 percent, and horses, goats and sheep two percent.

In addition to written recommendations, nutritional information was disseminated via on-farm consultations, commodity group workshops, the media, and local and regional meetings.

Veterinary Services

The Veterinary Services Branch develops and administers the programs and activities which are proven necessary to assure rural and urban Manitobans ready access to competent veterinary services. Adequate veterinary care for the livestock industry is considered an important factor in the overall national and provincial economy. All activities are designed to assure the Manitoba livestock industry of adequate veterinary care.

Western College of Veterinary Medicine

The Western College of Veterinary Medicine was founded in 1965 as a four western province venture to satisfy the long-standing western needs for veterinary training. Canada and Saskatchewan provided the capital funding while Manitoba, Saskatchewan, Alberta and British Columbia agreed to share net "after federal" operating costs on an annual resident student basis. These now exceed $10,000 per student per year. Student quotas were assigned in accordance with the respective provincial livestock populations. Of the present 72 student enrollment, Manitoba's quota is 12.

Veterinary Science Scholarship Fund Act

This activity was introduced in 1946 to counteract a declining interest in veterinary medicine, to assist Manitoba students in their four years of study away from home and to encourage their return to rural Manitoba practice. One fifth of their total scholarship is written off for each year of home province service. Scholarships of up to $750 per year have remained unchanged since 1971.

Veterinary Student Summer Employment

Manitoba veterinary students must go out of province for the latter four of their six year university course. This four year separation tends to break their home ties with Manitoba, unless they are brought back for their summer recess each year.

The veterinary student summer employment activity attempts to maintain their home preferences, intersperses each of their academic years with four months of practical training appropriate for their academic level and favourably impresses them with the satisfactions to be gained from rural Manitoba service.

The activity is highly dependent on the cooperation of and financial participation by the rural veterinary practitioners. They agree to spend the time and effort to adequately train the students, and as the students gain in usefulness, to pay a commensurate portion of their salaries.

Summer employment has proven to be our most effective method of preparing students for rural practice, of screening those unsuited and of recruiting those well suited to rural Manitoba service.

Veterinary Services Act

In 1970 amendments to the Veterinary Services Act provided additional grants for the establishment of public animal hospitals, with the provision that once a hospital was established the municipalities would cost share its ongoing maintenance and operation.

Municipalities responded promptly and positively. As rapidly as Districts were established and the public hospitals constructed, new veterinary services were recruited and have been regularly retained in Alonsa, Arborg, Ashern, Ethelbert, Gladstone, Glenboro, Lac du Bonnet, Lundar, Minnedosa, Pilot Mound, Roblin, St. Claude, St. Lazare, Ste. Rose, Selkirk and Vita. In Killarney, Melita, Notre Dame and Russell the existing services were stabilized and in Dauphin, Hamiota, Neepawa, Morden, St. Pierre, Shoal Lake, Souris, Steinbach, Swan River and Virden, the

existing services were stabilized and have been expanded. Of the new services, Arborg, Gladstone, Lundar, Pilot Mound, St. Lazare, Selkirk and Vita have also been expanded. The hospital facilities at Vita have been enlarged. The Alonsa hospital has been upgraded considerably and the services extended to include health management visits and extension work.

To meet the increasing need for dollar support brought about by inflation, matching provincial grants were increased in 1981 and again in 1982, and now stand at $10,000 per district.

Veterinary Drug Distribution Centre

The Manitoba Veterinary Drug Centre was instituted in 1974 to give Manitoba veterinarians access to volume buying power. In addition, it enabled them to regain the stability of income and professional contact through competitive merchandising, while utilizing their expertise to correct growing and often serious misuse of veterinary drugs.

The price reduction in veterinary drugs sold to Manitoba farmers through veterinary outlets has exceeded one million dollars in each of the last five years. A similar amount has accrued as profit to the veterinarians and has greatly lessened their need for public subsidization and for higher professional fees.

All direct operating costs of the Veterinary Drug Distribution Centre are recovered.

Humane Treatment of Animals

The Animal Disease Act now classes livestock deprived of normal feed and care as "diseased" and thereby subject to the veterinary direction authorized under the Act. Over 90 percent of rural veterinarians have volunteered to act on demand as humane inspectors.

A highly cooperative working arrangement, with each responsible for their respective duties, has been developed with the R.C.M.P. As many as 30 cases are handled each year with about half proving unfounded, with many responding well to veterinary direction and only a few requiring court action.

Manitoba Semen Distribution Centre

Artificial insemination has proven to be one of the most effective means ever developed to improve livestock, but Manitoba has too few livestock to sustain a modern full scale producing stud. The service therefore depends on imported semen.

The Manitoba Semen Producing Centre attempts to gain the best of both worlds by making available high quality semen from genetically proven bulls, wherever located, without the cost of owning and keeping them. Semen is purchased from other provinces, U.S.A. and overseas, in sufficient volume to meet Manitoba's demand and to assure Manitoba livestockmen of their choice at a reasonable price. Sufficient discount is attained on the volumes purchased to fully recover the operating costs of the Centre.

Provincial Veterinary Laboratory Services

The Veterinary Medical Laboratory is a major reference centre specializing in the diagnosis of all diseases which may effect the varied species of animals in Manitoba. It is designed to supplement and strengthen the service of veterinary practitioners and to provide the expertise that is not possible within the private means of the livestock industry. The laboratory also monitors all serious animal diseases, and in particular, animal diseases which are readily transmissible to humans. The service also provides the warning and the means to effect control measures where indicated. It serves veterinarians, livestock producers, agriculturists and other departments of government.

In cattle, Bovine Virus Diarrhea (BVD) continued to be prominent with 68 cases recorded. This was also involved in 19 abortions. An investigation carried out at the Ralph Connor Grazing Co-op showed that BVD was associated with poor weight gains in steers on pasture. Other conditions causing concern in cattle herds during the year included abortions from various causes, neonatal diarrhea in calves, Haemophilus pneumonia, acute shipping fever pneumonia, Cryptosporidia and Salmonellosis in calves and an increase in the number of cases showing copper deficiency.

In pigs, cases of TGE were down, but Haemophilus pleuropneumonia cases were increased. Swine dysentery (including Treponema and Campylobacter) continued to take a heavy toll in feeder pig operations and severe enteritis in piglets continued to cause high losses in a number of cases.

There were no cases of Western Equine Encephalitis during the year, but a number of cases of gastric ulcers did occur in horses.

In poultry there was a moderate increase in the number of cases referred to the laboratory. Among the many conditions causing concern was Marek's disease in laying chickens, infectious bursal disease in pullets and SDS in broilers. One of the most unusual situations during the year involved 40 dead pelicans found in Southwestern Manitoba. Examinations indicated algae poisoning in this case.

During the year, semen evaluation was done on 120 beef bulls. Seventy-seven were satisfactory, 34 questionable and nine failed the test.

Table 7

1984 Summary Of Technical Operations

Total Accessions Received 11,695
Individual Test Procedures 198,511

Individual Test Procedures — Details

	1984	1983	% Change
Biochemistry (BCH)	73,476	26,318	(+179.0%)
Hematology (HMT)	21,565	17,590	(+ 22.6%)
Histology (HST)	14,871	15,702	(- 5.6%)
Bacteriology (BCT)	28,904	28,730	(+ 0.6%)
Mycology (MCO)	1,036	1,139	(- 9.0%)
X-Ray & Photos (PRC 18,20)	605	109	(+455.0%)
Trim Tissues (PRP 10,16)	30,724	28,811	(+ 6.6%)
Decalcifying (PRP 18,20)	414	109	(+280.0%)
Parasitology (PST)	991	956	(+ 3.7%)
Serology (SRL)	13,142	13,955	(- 5.8%)
Virology (VRL)	10,631	12,525	(- 15.1%)
Animal Holdings (PRC 24,26)	189	—	—
Toxicology (TXL)	211	100	(+111.0%)
Copper Tests (serum)	1,500	—	(new)
Total	198,511	157,949	(+ 25.7%)

Bees & Honey

Following the relatively mild winter of 1983-84 beekeepers reported generally good wintering success for colonies wintered both indoors and out. Spring conditions were generally fair to good for the build up of package and wintered colonies, with the exception of the Southwest Region which experienced a late blizzard on April 27th. Many beekeepers reported large losses of brood as a result of this blizzard.

Early summer conditions were generally good for both nectar production and foraging. However, drought conditions in the Southwest Region cut short the nectar flow in that area. The honey crop was variable throughout Manitoba, but on average, beekeepers reported a slightly higher than average crop.

Package bee prices in 1984 did not change substantially from 1983 prices. For a two pound package of bees and a queen, prices ranged from approximately $25.00 to $29.25.

Market conditions continued to be difficult following the 1984 honey harvest. During the fall and winter (1984) the market was fairly quiet, with many traditional buyers in the U.S. and Canada taking relatively small amounts of honey from Manitoba producers. Soft market conditions tended to force the price down from already depressed levels.

Package Bee and Wintering Survey (1984)

The annual package bee and wintering survey was conducted of all commercial beekeepers, the Manitoba Co-operative Honey Producers Ltd., and Cloverfield Bee Supplies Ltd., to determine the number of colonies established from imported package bees and wintered colonies in Manitoba in 1984.

From the survey it was concluded that approximately 87,460 two-pound packages or their equivalent were imported with about 70 percent of these originating from California. Allowing for a 10 percent loss of those packages results in 78,718 "producing" colonies originating from packages. The total number of colonies wintered successfully during the 1983/84 winter amounted to 40,924. With approximately 2,870 colonies being exported or kept outside Manitoba the result was about 116,000 producing colonies operated by an estimated 1,750 beekeepers during 1984. Of this total it was estimated that about 45,000 colonies would be put into winter storage in the fall of 1984.

Apiary Inspection

During the summer of 1984 eight per diem inspectors and two summer students were hired to assist in the Honey Bee Disease Inspection and Control Program. A total of 19,687 honey bee colonies were inspected.

Table 8

Honey Prices And Production — Manitoba

1983 and 1984

	1983	1984
Number of Beekeepers	1,700	1,750
Number of Colonies	111,000	116,000
Honey:		
Average kg/hive	66	73
Average lb/hive	(145)	160
Total production — kg	7,301,000	8,436,000
Total production — lb	(16,095,000	18,560,000
Price/kg — ¢	130	110
Price/lb — ¢	(59)	50
Total Value	19,496,000	$9,280,000
Beeswax:		
Production — kg	109,515	126,540
Production — lb	(241,425)	278,400
Price/kg — ¢	(367)	374
Price/lb — ¢	(167)	170
Total Value	$ 402,000	$ 473,280
Total Value Honey & Beeswax	$9,898,000	$9,753,280

Of these, 417 (2.1 percent) were found to be infected with American Foulbrood Disease (AFD) while 29 (0.2 percent) were infected with European Foulbrood Disease (EFD). This compares to 1983 statistics of 18,019 colonies inspected with 297 (1.7 percent) AFD-infected colonies and 92 (0.5 percent) EFD-infected colonies being found.

Acarine Disease Concern

The appearance of this condition in Texas in mid-1984 caused Manitoba beekeepers great concern because of their dependence on the southern U.S. for bee supplies. Department apiculture staff were actively involved in helping provincial producers to develop a response to this concern.

Meetings were held with government bodies and producer groups in Canada, the U.S. and Mexico. It was finally agreed that honey bees would be allowed into Canada in 1985, provided they came from apiaries that had been inspected and certified free of acarine disease, in states that were declared free of the condition.

It was expected this threat would influence more producers to overwinter bees in the future.

Research

Apiculture staff were actively involved in a survey to determine if the honey bee tracheal mite *(Acarapis woodi)* was present in colonies being wintered in Manitoba in 1984. Two students assisted in the analyses of samples, which were conducted at the University of Manitoba. A total of 55 beekeepers submitted 237 samples, each of which contained 250 bees. From each sample, 100 bees were dissected and analyzed for the presence of the tracheal mite. This resulted in a total of 27,300 bees being examined. None of these samples showed evidence of acarine disease.

Beekeeper Compensation Program

As a follow up to the Beekeeper Compensation Program that was established to compensate beekeepers and some seed producers for losses resulting from the 1983 Emergency Mosquito Abatement Program, a major activity during 1984 involved the handling and processing of applications for compensation. Some 425 applications for compensation were received from honey beekeepers, leafcutter beekeepers, alfalfa seed producers and one sweet clover seed producer. Total compensation paid under the program amounted to approximately $860,000.00.

Extension Activities

Emphasis continued to be placed on four general extension activities: newsletters, meetings, personal visits and support of regional beekeeper associations. In addition to providing general support to and attending the meetings of the Red River Apiarists' Association and the Brandon Area Beekeepers Association,

Apiculture staff assisted in the formation of a new regional association — the Southeast Beekeepers' Association.

Apiculture staff participated in various courses at the University of Manitoba and information was freely distributed by telephone and personal contact. During the spring of 1984, one honey bee disease workshop was held at Arborg. This was the last in a series of disease workshops that had been held at most major towns in southern Manitoba over the last three years.

Apiculture staff assisted the Red River Apiarists' Association in the organization of the Manitoba National Honey Show and helped co-ordinate honey promotional displays at the Manitoba Food Products Event and at several regional fairs and exhibitions. Department staff worked closely with and acted in an advisory capacity to many associated organizations and agencies, including the Manitoba Beekeepers Association, the Manitoba Honey Marketing Board, the Manitoba Cooperative Honey Producers Ltd., the Canadian Honey Council and the University of Manitoba, Department of Entomology.

Bear Damage to Apiaries

Once again, the Department of Natural Resources offered a Bear Damage Compensation Program to beekeepers. During 1984, approximately $100,000.00 in compensation was paid to beekeepers for bear damage in their apiaries. In 1984, the Bear Fence Grant Program, which allows for a $100.00 grant to beekeepers for each electric fence built (up to a maximum of 10 fences/beekeeper/year), paid for a total of 40 fences.

Leafcutter Bees

Alfalfa leafcutter bees are managed to pollinate alfalfa for seed production. These bees reproduce and generally increase their numbers about two fold annually. This allows the beekeeper the option of increasing the acreage of alfalfa to be pollinated by leafcutter bees the following year or selling the surplus bee larvae (sold in the cocoon stage) to foreign or domestic markets.

In 1984, there were approximately 130 leafcutter beekeepers in Manitoba, representing an increase of 30 percent over 1983 figures. The number of leafcutter bees totalled 160 million, a 23 percent increase over 1983 figures. The value of the bees remained fairly stable in 1984, being priced at $0.005 each, for a total value of $800,000.00.

There were 3293.3 ha (8137.7 ac) in pedigreed alfalfa seed production in 1984, an increase of 25 percent over 1983. Total alfalfa seed production in Manitoba was 910,000 kg. (2,006,000 lb.) and at $2.09 per kg. ($0.95 per lb.) provided for a total farm value of $1,905,000.00.

The extension apiarist supported the leafcutter bee and alfalfa seed industries through general extension and by acting as a technical advisor to producers.

Chalkbrood disease was first detected in leafcutter bees in Manitoba near Gimli in 1983. During the spring of 1984, this initial infestation was cleaned up by removing the diseased bees and contaminated equipment from the area and replacing with disease-free bees and equipment. A follow-up monitoring program indicated the disease was still present in the area. A survey of leafcutter beekeepers was conducted in 1984, to determine the extent of chalkbrood disease in Manitoba. Two infestations were found in the Fisher Branch-Arborg area.

Crop Management and Marketing

Spring operations were underway in late April in most areas of Manitoba. However, seeding had barely begun in the northern Swan River area when a wet snowfall in mid-May delayed further spring operations for about three weeks. As a result the area experienced two dates of seeding — early and late. In general, crop emergence throughout Manitoba was excellent and timely showers produced good stands. June rains, necessary for continued good growth, were spotty and the south west corner received very little precipitation. Other areas around Winnipeg received timely rains and produced excellent crop yields.

Harvest began prematurely due to excessive mid-July to mid-August heat, but yields around Winnipeg and east of the Red River were exceptionally good. Proceeding westward, yields tapered off culminating in situations in the western part of the province where the crops were not worth harvesting and farmers salvaged what they could for feed. Generally, yields were slightly above average, but not equal to the bumper yields of 1982.

Cereals

Wheat

Plantings of spring wheat in Manitoba in 1984 were estimated at 1.7 million hectares (4.2 million acres). This represented a decrease of 80,000 hectares (200,000 acres) from 1983. Production of 3.55 million tonnes (130.5 million bushels) was nine % higher than 1983 production, due to higher average yield. Neepawa continued as the most popular variety, grown on 30.6% of the wheat area. Columbus advanced in popularity to 27.5% of the wheat area.

Durum wheat was planted on 101,000 hectares (250,000 acres), an increase of 25% from 1983. Due to increased plantings and higher average yield, production was 32% above 1983. Coulter remained the most popular Durum variety.

Fall plantings of winter wheat, located mainly in south western Manitoba, were unofficially estimated at 40,000 hectares (100,000 acres).

Oats

Oat plantings were estimated at 231,000 hectares (570,000 acres), an increase of four % from 1983. Due to increased plantings and higher average yield, production rose to 447,000 tonnes (29 million bushels), 11% above 1983. Fidler and the new variety Dumont, both with superior stem and leaf rust resistance, accounted for 75% of total plantings.

Barley

Barley was planted on 728,000 hectares (1.8 million acres) in 1984. Production of 1.938 million tonnes (89 million bushels) was 22% above 1983, mainly due to higher average yield.

Bonanza, a malting variety, continued to lead in popularity at 38.4% of the planted area. Bedford gained in popularity as a feed variety at 32.1% of the area.

Rye

Rye plantings increased to 88,600 hectares (220,000 acres), a 5% increase from 1983. Production at 195,800 tonnes (7.7 million bushels) represented a 20% increase from last year.

Oilseeds

Flax

Flax plantings increased sharply in 1984. This crop occupied 405,000 hectares (1,000,000 acres) compared to 304,000 hectares (750,000 acres) in 1983. Total production reached 419,000 tonnes (16,500,000 bushels), an increase of 41% from last year. The variety McGregor, grown on 39.4% of the seeded area, became the most popular cultivar.

Canola (Rapeseed)

Plantings of canola were estimated at 480,000 hectares (1,200,000 acres), an increase of 26% from 1983. The variety Westar became the most popular at 59% of the seeded area. An estimated 99% of the crop was sown with canola varieties.

Sunflowers

Sunflower plantings were estimated at 65,000 hectares (160,000 acres), a 60% increase from 1983. Manitoba produced 86% of Canada's sunflower crop. Hybrid varieties accounted for an estimated 99% of Manitoba plantings.

Special Crops

Grain corn plantings were estimated at 72,000 hectares (180,000 acres), a reduction of 8,000 hectares (20,000 acres) from 1983. The average yield was estimated at 3.245 tonnes/hectare (51.7 bu/ac), an improvement from 1983. The quality of the harvested crop was generally good. An estimated 15% of the crop was sold into the Manitoba distilling industry, and the balance sold mainly for feed. The European corn borer again posed a fairly serious threat to the crop, necessitating control measures.

Other special crops such as field peas, mustard, lentils, canaryseed, sugar beets, soybeans, fababeans, field beans, and buckwheat continued to provide Manitoba farmers with cropping alternatives. Special

Table 9

Summary — Major Edible Oilseed and Special Crops — 1984

Crop	Area (ha)	Yield per Hectare	Price	Value of Production	Value per Hectare 1984	1983
Canola	480,000	1120 kg.	$350.00/t	$188,160,000	$ 392.00	$ 397.50
Sunflowers	64,775	1175 kg.	35.2¢/lb.	$ 26,880,000	$ 413.60	$ 369.60
Grain Corn	72,000	3.245 t	$143.00/t	$ 33,410,000	$ 464.03	$ 389.16
Buckwheat	32,400	474 kg.	34.5¢/kg.	$ 5,298,000	$ 163.53	$ 180.40
Field Peas	44,500	1816 kg.	23.4¢/kg	$ 18,910,000	$ 424.94	$ 322.50
Mustard	18,220	835 kg.	38.5¢/kg.	$ 5,857,000	$ 321.48	$ 288.00
Lentils	10,120	1345 kg.	44¢/kg.	$ 5,989,000	$ 591.80	$ 320.32
Canaryseed	12,000	896 kg.	26.5¢/kg.	$ 2,849,000	$ 237.44	$ 145.95
Sugar Beets	11,080	30.3 t	$ 34.43/t	$ 11,559,000	$1,043.23	$1,279.20

Crop	Area (ac)	Yield per Acre	Price	Value of Production	Value per acre 1984	1983
Canola	1,200,000	20 bu.	$ 7.93/bu.	$188,160,000	$ 158.60	$ 160.65
Sunflowers	160,000	1050 lb.	16¢/lb.	$ 26,880,000	$ 168.00	$ 150.00
Grain Corn	180,000	57.7 bu.	$ 3.64/bu.	$ 33,410,000	$ 188.19	$ 157.50
Buckwheat	80,000	8.8 bu.	$ 7.49/bu.	$ 5,298,000	$ 65.91	$ 73.20
Field Peas	110,000	27 bu.	$ 6.36/bu.	$ 18,910,000	$ 171.72	$ 131.25
Mustard	45,000	745 lb.	17.5/lb.	$ 5,857,000	$ 130.38	$ 116.00
Lentils	25,000	1200 lb.	20¢/lb.	$ 5,989,000	$ 240.00	$ 130.00
Canaryseed	30,000	800 lb.	12¢/lb.	$ 2,849,000	$ 96.00	$ 58.90
Sugar Beets	27,700	13.5 tons	$31.24/ton	$ 11,559,000	$ 421.74	$ 517.08

crops are not subject to delivery quotas and can provide improved cash flow to the grower. In addition, these crops provide the farmer with an opportunity to expand the range of crops produced on his farm, and play an important role in crop rotation.

Marketing — Special Crops

Department marketing staff participated in market development work with the Manitoba Pulse Growers Association, the Flax Growers Association and the Canola Council of Canada. Working with the Department of Natural Resources a brochure on wild rice was produced and distributed nationally and internationally. Limited sales of wild rice were later made to Japan and Germany.

During a mission to Japan, staff visited with the Japan Buckwheat Millers Association to maintain a well established association with that group. Incoming missions to Manitoba came from Russia and Finland, and other enquiries were made on such commodities as wild rice, peas, beans, lentils, buckwheat and canaryseed.

Seed Production

A total of 125,717 hectares (310,521 acres) were devoted to seed production in 1984. This was a small decrease of 800 hectares (1979 acres) from 1983.

New Crop Investigations and Development

The search for new crops which have feasibility for production in Manitoba is an ongoing program in Manitoba Agriculture.

The 1984 investigations indicated that safflower and lathyrus have good tolerance to drought and hold potential for production in the drier areas of the province. Safflower is presently being used as a component of bird-food mixtures, and some whole seed is being exported for crushing in Japan. Feeding trials are being conducted to determine the suitability of lathyrus for livestock feeding.

Table 10
Major Crop Kinds Planted for Seed Production

	1984		1983	
	Hectares	Acres	Hectares	Acres
Wheat	50,155	123,844	52,007	128,457
Oats	2,923	7,219	2,000	4,940
Barley	19,625	48,474	21,234	52,448
Flax	19,849	49,026	18,630	46,016
Canola	4,027	9,946	3,280	8,102
Other	29,138	71,972	29,367	72,537
Total	125,717	310,521	126,518	312,500

Lupins are also suitable for production in Manitoba, but initial feeding trials indicate that swine dislike the taste when added to feed rations. Further testing and variety development is needed.

Agro-Man

Three projects operating under the cost shared agreement between Agriculture Canada and Manitoba Agriculture were conducted for the sixth consecutive year in 1984. The Crop Variety Demonstration Project determined the performance of 20 crops, including 84 varieties of cereal, oilseed and special crops, over 250 forage entries, 932 varieties of 169 different annual flower types, 1243 species of herbaceous perennials, 14 vegetable crops, and numerous test lines of potatoes. The trial locations spread into all five regions of the province. The Corn Production and Demonstration project examined the performance of three corn hybrids at 20 locations in fields of eight hectare (20 acre) size. The 1984 demonstration program concluded the sixth and final year of the project.

The Soybean Demonstration project was conducted at 23 locations in fields of 20 hectare (50 acre) size using two of the newest varieties available. On average, the demonstration fields yielded 1345 kg/ha (20 bu/ac) of good quality soybeans. The 1984 demonstration program concluded the six year program.

Crop Insect Infestations

Grasshoppers — Grasshoppers were the most important insect pest problem in Manitoba in 1984. Major egg hatching began during the first week in June and widespread control measures were underway by mid-June. The most severe infestations were located in southwest Manitoba with the heaviest concentrations of hoppers in the Hartney-Lauder-Grand Clariere areas. Hot, dry weather prevailed throughout July and August, magnifying the damage caused by grasshoppers as well as providing excellent egg laying conditions for adult hoppers.

European Corn Borer — This pest appeared in very high numbers for the second year in a row with particularly heavy infestations in the Altona and Morden areas. Alerts issued by Manitoba Agriculture and careful field monitoring by farmers resulted in widespread spraying which reduced corn borer damage to negligible levels in most areas.

Wheat Midge — Wheat midge was recorded in virtually all wheat growing areas of Manitoba. However, economic infestations occurred only in the Swan River Valley, north of the Riding Mountains. In that area, field surveys indicated that although a high percentage of fields were infested with wheat midge, less than 10% suffered economic damage from this pest.

Sunflower Beetles — Populations of this pest began to increase in mid to late July and considerable spraying was carried out in the Red River Valley to prevent crop damage.

Armyworms — Armyworm populations in a number of areas of the Eastern and Interlake regions were high enough to warrant control measures.

Engineering Services — Crops

Weed control, grain drying and diesel fuel investigations received considerable emphasis from department engineers during the year.

Weed Control — Some 500 nozzle pattern tests were conducted to determine the best operating pressures and heights, and to provide a basis for comparing nozzles from different manufacturers. Nozzle durability tests were also conducted on 14 sets of nozzles made of brass, stainless steel, nylon, Kematal, Alumax and ceramic materials. Reports were

prepared and the results distributed by mail, public meetings and the mass media.

A farm sprayer survey of 49 sprayers across Manitoba was conducted to determine the condition of sprayers being used, the quality of components, corrective measures required, and the farmers' ability to calibrate the machines correctly. The results were publicized through public meetings, individual mailings and the mass media.

Twelve different types of nozzle check valves were tested to determine their variability and acceptability for farm use. Results were distributed through the agricultural offices.

Displays of equipment were again organized for the annual Manitoba Weed Fairs. Investigations of sprayer problems were made, 15 sprayer clinics were conducted throughout Manitoba, and substantial design assistance was provided to several local sprayer manufacturers.

Training, testing and licensing of commercial pesticide applicators was done through three different courses for aerial, ground and rights of way applicators. Approximately 100 applicators were tested in 1984-85.

Grain Drying — Further development work was done on a heat exchanger for hot air grain dryers. Controlled tests on partial floor grain aeration systems were conducted and the results used to update the computer design program for grain aeration and natural air drying. A hopper bottom bin aeration system was evaluated for a local manufacturer. Public meetings, news releases and individual consultations were used to distribute information on grain drying to the farmers of Manitoba. Two new factsheets — one on wire sizing for electric motors and one on fan transitions for grain bins were produced.

Diesel Fuel Investigations — Numerous problems with diesel engines in southwest Manitoba led to a detailed investigation of diesel fuel cleanliness. Department engineers played a key role in coordinating the activities of the technical committee composed of farmers, truckers, engine manufacturers, researchers and oil company representatives, which was set up by the Minister to determine the causes and solutions to the problems. Testing services and technical advice were supplied to hundreds of farmers who had experienced problems or were concerned about possible future problems. A program of bulk station fuel monitoring and testing was also initiated by the department. In other crop related activities a plan was developed for a home-made soil sampler to attach to a farm tractor; methods of applying $CuSO_4$ to peat soils were investigated; lentil harvesting losses were evaluated; and equipment and techniques for banding fertilizers were assessed. Assistance was provided to PAMI, the University of Manitoba, and other agencies in selecting research and evaluation projects. Approximately 230 consultations were provided to machinery manufacturers and dealers, and about 700 consultations were held with farmers on a wide variety of field machinery and grain drying questions.

Horticulture

Total estimated value for 1984 horticultural production:

Potatoes	$33,562,000
Commercial Vegetables (Fresh)	9,865,000
Fruit	3,200,000
Environmentally Controlled Production (Greenhouse and Mushrooms)	11,600,000
Nursery Products and Sod	8,000,000
Miscellaneous	4,500,000
TOTAL	$70,727,000

Potatoes

The area planted to potatoes in 1984 increased to 16,200 hectares (40,200 acres). Of this total 13.2 percent was produced for table stock, 78.1 percent for processing and 8.7 percent for seed. Gross production was estimated at 264,400 tonnes (5,829,000 CWT) and a gross yield of 16.2 tonnes per hectare (145 CWT per acre). An extended period of drought in some areas of the province resulted in reduced tuber size. It is estimated that the saleable product produced was 243,038 tonnes (5,358,000 CWT).

Spring planting and early summer growing conditions provided for vigorous and good early development. However, lack of rainfall in July and August resulted in yields and tuber size much below normal in several areas. Late season rainfall combined with spotty showers on some fields did produce localized high yields. In general, production around Portage la Prairie and Carman was good, while many fields in the Carberry and Winkler areas yielded very poorly. In the dryest areas the response to irrigation was a 300 percent increase in yield.

Harvest conditions were variable. An early cold period combined with rain, severely chilled many fields of Russet Burbank potatoes and, when combined with immaturity, resulted in tubers which did not fry to color specifications of the processors until they had been in storage for an abnormally long period. Because volume of potatoes for french frying was below that which had been contracted, supplies moved into the province from Alberta. In contrast, short supplies of chipping stock in Alberta resulted in the Winnipeg plant resuming shipments to major outlets in Saskatchewan.

Vegetables

Weather conditions during the 1984 production season were extremely variable. Warm, dry weather throughout most of April resulted in field preparation and some seeding activity by mid-month. A heavy snowstorm in late April temporarily halted field work but caused no problems or setbacks. Strong winds in May caused some damage to seedling stands, necessitating reseeding in some areas. Favourable temperatures and ample rainfall in June were ideal for crop growth. The months of July and August were warm and relatively dry. Early fall conditions were excellent for digging, but too warm to move root crops into storage. The weather in late September and October turned foul, preventing the completion of the root crop harvest.

The yields and quality of the summer crops were excellent. Drought in many areas of Western Canada created strong market conditions for these commodities. However, prices were generally lower than 1983.

Inclement fall weather significantly reduced the storage holdings of carrots, rutabagas and parsnips. The quality of these commodities ranged from good to excellent. Markets were steady, but prices were generally weaker than 1983.

Nursery Stock

In 1984 there was no significant change in production acreage. The figure was approximately 485 ha (1200 ac). Estimated value was $4,000,000.

In general, spring was normal with overall cool, wet weather and some evidence of frost damage to new growth. Adequate moisture in June resulted in good plant establishment and subsequent growth.

On the average, retail sales were up three to five percent in value, due to increased volume of sales. Local growers were still having to compete with surplus product from Minnesota and California.

Residential landscape contracting was slow with very competitive bidding and there was some increase in commercial contracts.

Nursery Sod

Some winterkill in commercial fields and poor establishment resulted in fairly good demand for the product. In spite of some shortages, prices did not significantly increase over 1983.

Nursery sod from Manitoba is still being shipped into eastern Saskatchewan and north western Ontario. The main production area is on peat land in the Stead-Gull Lake region.
Estimated production — 1000 ha (2470 ac)
Estimated value — $4,000,000.

Environmentally Controlled Production

The greenhouse industry has expanded 10 percent over the last year to an area of eight ha (20 ac). This expansion has been developed to meet the growing markets for peak seasonal pot plants for Manitoba and Saskatchewan markets. The shift of imports coming from Ontario to the southern U.S. markets has helped Manitoba expand its industry. The value of the industry is conservatively estimated between five and six million dollars with a confirmation of value scheduled in 1985.

A major problem of the industry is product marketing during the non-peak seasons. Labor continued to be the major operating cost for year-round and seasonal greenhouse growers. Prices for plants remained stable. Innovations in reducing some operating costs helped absorb some of the increases in cost of production.

Bedding plant growers or seasonal greenhouse growers experienced good sales, with prices remaining stable at $0.14 to $0.18/plant seedling.

Mushroom production in Manitoba has not been significantly affected (average production 36,288 to 37195 kg/week or 80,000 to 82,000 lbs./week) by the closure of a new mushroom facility in Oakville. Total annual production for Manitoba was 1.9 million kg (4.2 million lbs.). Export accounted for 272,160 kg (600,000 lbs.). Manitoba production represents approximately 42 percent of the prairie mushroom production. Mushroom imports into Manitoba were relatively stable from B.C., up slightly from Ontario and negligible from the U.S. Fresh consumption of mushrooms in Manitoba increased 16 percent from 1983 to 1984. This is slightly higher than the Canadian average consumption of two kg/capita. Prices increased $0.25 for 2.2 kg (five lbs.) from $7.00 for 2.2 kg to $7.25 for 2.2 kg, ($7.00 for five lbs. to $7.25 for five lbs).

Fruit Crops

The area planted to strawberries increased by 10 percent from 1983 to a total of 223 ha (550 acres) in 1984. Winter injury was 20 to 40 percent higher in the southern portion of the province, but ideal spring conditions resulted in good recovery of these damaged fields. Above average yields were experienced throughout the province, 5,616 to 13,474 kg/ha (5,000 to 12,000 lbs./acre). Crop losses caused by rapid ripening during early July, and the competition in the U-Pick industry, contributed to fruit losses of 10 to 20 percent in concentrated production areas like Portage. Prices remained stable in areas close to major population centers like Winnipeg and Brandon, $1.76 to $2.20/kg ($0.80 to $1.00/lb.). However, prices dropped to a low of $1.10/kg ($0.50/lb.) in some areas more than 40 km from a major population centre.

Imports of new plants in 1984 totalled 1.8 million (212 ha or 525 acres). This was down approximately 10

percent from plant imports in 1983 (2.0 million). New raspberry plantings expanded from 12 ha (30 acres) in 1983 to 24 ha (60 acres) in 1984, with expansion projected to reach 40 ha (100 acres) based on 1985 planting stock orders. Strong U-Pick interest in this crop continues to support the expansion as well as the potential form of mechanical harvesting for cottage industry processing.

Research Consultation and Investigation

Consultations — In respect to consultations pertaining to research, horticultural staff attended 65 meetings with research institutes and 37 meetings with industry. In addition, a total of 185 individual consultations were held with research institutes and 1982 with industry.

Investigations — Investigation and development projects were undertaken to determine new crop production technology and the economic potential of additional horticultural crops. Many of these projects were initiated in co-operation with the University of Manitoba, Agriculture Canada Research Stations and commercial growers. Funding for specific programs was under the Federal/Provincial Agro-Man Agreement.

Project Summary

- Cultivar evaluation trials, potatoes, vegetables, small fruit and ornamentals
- Monitoring program to determine factors for integrated pest management program for early blight of potatoes
- Investigative trials to determine fungicidal control of sclerotinia on lentils
- Yield comparison of fresh cut and precut seed potatoes
- Trials for the comparison of grass herbicides on potatoes
- Determination of the effect of X-Ray stimulation of Russet Burbank seed
- Determination of the effect of excessive nitrogen fertilizer on fry color
- Investigations on the effect of inter-row spray crop traffic on yield
- Evaluation of different methods to encourage maturity of processing potatoes
- Evaluation of zinc fertilization on potatoes
- Trials to compare suitability of MH-30 and CIPC for sprout inhibition
- Determination of yield development and value curves for Shepody vs Russet Burbank
- Leaf tip burn control in head lettuce grown on mineral soils — Year III
- Commercial storage carrot variety evaluation — Year IV
- Effect of chlorine dioxide (Purogen) in controlling sclerotinia infection and decay in storage carrots — Year II
- Herbicide trials in onions — Year III
- National asparagus variety trials — Year III
- Evaluation of the potential of watermelon and muskmelon as viable commercial crops for Manitoba — Year II
- Cooking onion fertility and storage trial
- Broccoli fertility and short-term storage trial
- Fusarium yellows control in cabbage
- Deep soil testing of vegetable fields
- Witloof chicory potential for Manitoba — Year III
- Demonstration of garlic production — Year III
- Silver skin and Dutch set fertility trial
- Parsnip quality improvement project
- Soil fumigation for strawberry production
- Strawberry cultivar testing
- Determination of potential of day neutral strawberries in Manitoba
- Plastic mulch trials for winter protection on strawberries
- Foliar spray trial of macro and micro-nutrients on strawberries
- Raspberry cultivar evaluations
- Blueberry trial to establish economic potential
- Cardinette rose production management trials
- Growth room lighting project for seedling production
- Hardy potted lilies production management trials
- Investigation trial to determine use of plastic mulch for greenhouse weed control
- Cut rose marketing survey to determine production potential in Manitoba
- Kentucky bluegrass fertility trials

Program Delivery And Extension

The technology transfer program in respect to horticultural crop production and marketing consisted of the following activities:

- A total of 52 publications and factsheets were written or revised for publication.

- Press, radio and T.V. included 61 separate items.
- The Hort-line for horticultural enquiries handled 2500 calls during a four month period from May to August.
- In respect to staff training and consultation, participated in 14 meetings and provided consultative services on 156 occasions.
- A total of 152 meetings were held for commercial growers and home gardeners, at which production information was provided to a total attendance of 5,328.
- Six field days and tours for commercial growers were held with total attendance of 325.
- Horticultural Industry Days — a three day educational conference and trade show was organized jointly with five grower associations, industry and research institutes. Registrations totalled 375.
- Staff were active on the boards of directors of four producer organizations, the planning committee of the International Peace Gardens and cooperated with the University of Manitoba in presenting a course in greenhouse management.
- Plant Pathologist participated in five pesticide dealers licensing courses with 175 dealers participating.

Delivery of Services

- Plant Pathology — diagnostic services were provided for 7,256 samples, an increase of 4.6 percent over 1983.
- Plant Disease Survey — the canola crop in central, northwest and southwest regions was surveyed for incidence of disease. Major disease problem encountered was sclerotinia.
- Analyses for sugar beet cyst nematodes was carried out on soil samples from 71 fields. Cysts were detected in one field.
- Analyses were carried out on 48 seed samples of lentils for ascochyta, with 27 samples found infected.
- Provided judges for 45 horticultural society exhibitions and facilitated the judging of the provincial home grounds competition.
- Specific Tariffs — coordination of the implementation and cancellation of specific duties on fresh fruit and vegetable products for the Western Tariff Zone was carried out on behalf of the Canadian Horticultural Council. Action taken on 25 items.
- Elite Seed Potato Production — the department, in cooperation with the Manitoba Seed Potato Growers' Association, continued to support the operation of Espo Farms, to ensure a source of disease free seed stock to be used in producing commercial seed potatoes in Manitoba. In 1984 8.7 tonnes of Elite I, 100.6 tonnes of Elite II and 472.3 tonnes of Elite III potatoes were produced.
- Mechanical Polyethylene Mulch Applicator and transplanter — equipment provided to six growers for experimental purposes.)

Regulatory Services

The Horticultural Section was responsible for three Provincial Acts:
Manitoba Fruit and Vegetable Sales Act
Manitoba Horticultural Societies Act
Manitoba Plant Pests and Diseases Act.

Diagnostic services were provided to the Department of Natural Resources in carrying out the surveillance program for Dutch Elm Disease. Staff also participated in educational courses carried out in respect to licensing of pesticide dealers and applicators.

In the area of program development and coordination, section staff were very active on an on-going basis on a wide range of local, provincial, regional and national committees and organizations.

Northern Horticulture

The Northern Horticultural Program includes the following activities:

- Potato cultivar evaluations at three locations
- Barley cultivar evaluations including six varieties at two locations
- Forage seed demonstration trials at two locations
- Garden and tunnel demonstrations at 19 locations
- Provisions for seed and fertilizer for youth gardening program
- Field demonstrations and technical backup for semi-commercial production
- Consultation and onsite visits were provided to 36 communities
- Regular work with local press and radio
- Workshops were held in 11 communities with 372 participating
- Provide inservice training for Nutrition/Health Advisors (Frontier School Division) and to community health representatives (Medical Services Branch, Health & Welfare Canada)
- Providing landbreaking and tilling services in 10 communities
- Provided handtillers to 16 communities, which were utilized on 106 gardens

- A local library of 160 publications relating to northern gardening made available to the public
- Represented the Department on the Block Planning Committee.

Engineering Services — Horticulture

Detailed design assistance was provided for 35 special crop structures on structural design, refrigeration, heating, ventilation and humidification of greenhouse, nursery, potato, and vegetable storages.

Work was initiated on the development of a simple bruise detection system to enable growers and extension personnel to monitor blackspot bruise in potatoes at harvest time. Assistance was also provided on a project to investigate varying temperature and humidity levels during storage on the quality of cooking onions.

Problems involving wood rot in potato and vegetable storages were investigated. A factsheet on this problem was revised. A display model of suitable construction techniques to minimize this problem was constructed and displayed at two grower meetings.

Assistance was provided on a project to evaluate the effect of varying rates of chlorine dioxide on controlling the spread of sclerotinia disease during the storage of carrots. A unique energy efficient greenhouse design was developed and drafted for a grower in Wabowden, Manitoba. This design would be appropriate for other small to medium sized greenhouse operations. A leaflet on the unit energy cost of various fuels was revised.

Marketing

Marketing staff maintained a close relationship with the Manitoba Vegetable Producers Marketing Board, the retail/wholesale produce industry, the Fresh For Flavour Foundation and producer associations in this area, in an effort to expand markets for Manitoba fresh produce and to replace imports.

Market development activities were undertaken to assist in establishing Manitoba silverskin onions with pickle companies in the U.S.A. and in other parts of Canada. Encouraging sales resulted. Samples were sent to many points in Canada, U.S.A. and Japan.

In the promotional area, the marketing staff provided a variety of activities in support of our "fresh" industry. These included a large display and staffing for the annual Canadian Fruit and Vegetable Wholesalers Convention, in Montreal.

A new informational brochure on vegetables was undertaken by the Branch. Assistance was given in design and production of U-Pick Strawberry maps and recipes, as well as informational brochures for the Greenhouse Association, Nursery and Landscape Association and the Farmers' Market and Roadside Stand Group.

Throughout the year, in conjunction with the Manitoba Vegetable Producers Marketing Board and the Fresh For Flavour Foundation, the Branch co-ordinated and produced a variety of in-store point-of-sale banners (in full colour) supporting different vegetable promotions. These included the "Winter Stew" promotion in January, "New Potato" promotion in July and "Summer Salad" promotion in July and August.

Vegetables were also well represented in the shopping mall, exhibition and fair promotions undertaken by the Branch in co-operation with the board.

Forage and Pasture Management

The grassland program set up in 1974 has involved 14 major Grassland Demonstration Projects spread throughout the Province. Twelve of the projects related to beef, one to dairy, and one served both dairy and beef. About 2,700 producers have been directly involved in these projects since they started 10 years ago. Producers are closely involved in the management and direction of the projects. The Department absorbs the operating costs, which are minimal since farmers supply the cattle. All projects are administered by regional staff.

The Department's Grassland Management Program is intended to demonstrate the benefits of forage management with maximized use of grass, legumes and annual crops. It is a direct extension method for establishing visible benefits to livestock producers. On-farm demonstration projects are conducted as a second stage to this extension program.

Agro-Man Project #301

The Grassland Section administers the Grassland and Forage Production and Handling Demonstrations Project under the Federal-Provincial Value Added Crops Production Agreement. The intent of this project is to improve the production, handling, and utilization of grasses and other forages grown for livestock feed by demonstrating modern grassland livestock management technology. It also investigates and demonstrates economical methods for on-farm storing, protecting, processing and feeding forage. This project is operated by regional staff once sub-projects have been reviewed and approved by the Grassland Section. The Grassland Section also acts as a resource to the regional demonstrations.

The Project results to date have been very encouraging. A high proportion of Manitoba's livestock producers have been exposed to the numerous and

varied demonstrations that have been run under the project. There has been very good acceptance of the project by both farmers and staff.

Agro-Man Project #303

The Forage Seed Production & Demonstration Project under the Federal-Provincial Value Added Crops Production Agreement is administered by the Grassland Section. Because of the threat from Chalkbrood disease in leafcutter bees this year, Agro-Man Project #303 provided a grant to the Manitoba Alfalfa Seed Producers Association to allow them to monitor this disease situation in the area. In addition, steps were taken to sanitize the producers' equipment to reduce the potential spread of this disease.

Investigational Trials

In co-operation with the Weeds Section two forage-herbicide evaluation trials were conducted. The tolerance of nine legumes and 17 grasses to 20 different herbicides was evaluated. The data generated added significantly to our knowledge of forage herbicide tolerance and should lead to the licensing and recommendation of several new herbicides for improved forage production. Four trials were established at St. Claude, Holland, Seven Sisters and Lundar, to measure the comparative yield potential of 19 different annual forage crops. The data was compiled and presented at the Manitoba Agronomists' Conference. In addition, two trials were established to evaluate the saline tolerance of selected perennial forage crops. These trials were run in conjunction with the Soils Section.

Also in conjunction with the Soils Section, a fertility trial on a Kentucky bluegrass seed stand was conducted at Petersfield, Manitoba. This is an ongoing trial intended to support the forage seed industry in the Province.

Forage Seed Production

Total production of all forage seeds, including foreign and public varieties, decreased slightly from 7,420,000 kilograms (16,358,000 pounds) in 1983 to 7,090,000 kilograms (15,616,000 pounds) in 1984. Total farm value decreased from $7,371,000 to $5,863,000 in 1984.

There was little change in the area harvested for forage seed in 1984. Increases in production were experienced in timothy, meadow fescue and Birdsfoot trefoil, while the other crops experienced slight to moderate declines in production. In total, the 1984 forage seed crop decreased by five percent over the 1983 crop.

The prices paid for alfalfa, bromegrass, and Kentucky bluegrass advanced slightly, while meadow fescue remained the same and sweet clover fell slightly in comparison to 1983. Significant price decreases were experienced in birdsfoot trefoil, single cut red clover and timothy seed. The following table indicates the average farm gate price for a combination of certified and common seed.

Canadian Forage Seed Project

The Canadian Forage Seed Project was established to multiply and distribute foundation seed of the Canadian Public Forage Varieties. In 1984/85 applications for foundation forage seeds were down substantially from 1983/84. Most of the decrease in applications was due to a softening in the timothy seed market and the demand for timothy seed. In particular, Climax timothy seed was down substantially in 1984. In total 99 orders were received from

Table 11
1984 Final Production and Prices

	Production		Price Per		Farm
	kg '000	lb '000	kg $	lb $	Value ($000)
Alfalfa	910	2,004	2.09	.95	$1,904
Birdsfoot Trefoil	270	595	2.75	1.25	744
Bromegrass	45	99	.88	.40	40
Kentucky Bluegrass	50	110	.77	.35	39
Meadow Fescue	90	198	.99	.45	89
S.C. Red Clover	225	496	.62	.28	139
Sweet Clover	1,500	3,304	.35	.16	529
Timothy	4,000	8,810	.59	.27	2,379
	7,090	15,616			$5,863

Manitoba farmers and we were able to fill 77 of them. We distributed 4,720 kg (10,400 lbs.) of foundation forage seed, which amounted to 79 percent of the 5,940 kg (13,110 lbs.) that were ordered. The amount of seed distributed represents 76 percent of the seed that was distributed in the previous year.

Weed Control

In general, weed control on cropland was very good in 1984. Postemergence herbicides applied just prior to late frosts led to localized crop injury in the Southwest region. Heavy June rains in the Portage to Winnipeg area prevented ground application of postemergence herbicides and led to an increase in aerial application of herbicides. Fall weed control operations were limited by dry conditions in late summer, followed by the early arrival of snow.

Investigations

Several evaluation trials were conducted to support weed control recommendations and to develop control methods for specific problem weeds. Highlights included:

- Evaluation of the tolerance of 25 seedling and 25 established forage species to herbicides. These trials represented a continuing effort to identify potential herbicides for use in various forage species. Results will be used to support registration of these herbicides for use by forage producers in the province.
- Trials indicated that bromoxynil controlled seedling sweet clover in alfalfa, but was ineffective in controlling established sweet clover in alfalfa seed fields.
- The herbicides Banvel and Sencor were found to provide acceptable control of bladder campion seedlings in cereal crops.
- Roundup at reduced rates and in combination with additives such as ammonium sulphate fertilizer was evaluated in seven trials established in various locations through southern Manitoba.
- Alternatives to the use of Randox in onions were investigated. Use of repeat applications of low rates of bromoxynil appeared promising.

Biological Control

Monitoring continued on insects previously released for control of leafy spurge, nodding thistle and sow thistle. Biological control is slow and difficult to establish, but has the potential to provide environmentally safe methods of weed control and to address weed problems in inaccessible areas of pastures and rangelands.

Two additional releases were made in 1984, with the cooperation of Agriculture Canada:

- In cooperation with the Brenda-Winchester Weed Control District, a second release of the leaf gall fly *(Cystiphora sonchi)* was made near Deloraine for control of perennial sow thistle.
- In cooperation with the Pembina-Manitou Weed Control District, a pathogen was sprayed to control roundleaf mallow in a cereal field. Due to dry conditions, results were disappointing but further evaluation will be conducted in 1985.

A field day organized by the Pembina-Manitou Weed Control District enabled farmers to collect nodding thistle heads containing the seed-head weevil *(Rhinocyllus conicus)* for transport back to their farms.

A biological control agent which feeds on seeds of toadflax was found to be actively attacking toadflax in the Roblin Weed Control District. This insect had not been released in Manitoba but appears to have migrated from Saskatchewan where releases were made in 1957.

Herbicide Usage Planner

The interactive computer programs on Telidon continued to be well received by farmers. These herbicide selection aids were accessed 18,541 times.

Information available was expanded by adding recommendations for Triazine tolerant canola to the planner.

In addition to the Herbicide Usage Planner, information on the effects of herbicides on rotational crops was included in the Crop Rotation Planner.

Weed Control Districts

Thirty-three weed boards operated in 1984, including the newly formed Whitemouth-Reynolds Weed Control District. Weed supervisors enforced the Noxious Weeds Act and assisted farmers and homeowners by providing weed control information. They made 3,649 farm visits, identified 2,251 weeds, calibrated 180 sprayers and responded to approximately 25,000 weed control inquiries. Total weed district expenditures of $1,416,465 were supported by Weed District grants totalling $333,956.

Manitoba Agriculture provided technical support to the weed supervisors, including two one-week schools and a correspondence course training program.

Weed Fairs

Two-day fairs at Brandon and Winnipeg drew a total attendance of 6,300. With over 100 exhibitors participating, the Weed Fairs provide one-stop weed information centres for farmers, with information also available on other pests, fertilizers and related equipment.

Concurrent program sessions and handout materials covered a variety of topics including the Influence of Environment on Herbicide Performance, Tank Mixing Herbicides, Farm Sprayer Survey, and Special Weed Problems. Seminars on managing stress in the farm situation were well received. Over 300 farmers participated in "hands-on" weed identification workshops conducted each day.

Herbicide Use

Herbicide use appears to have declined somewhat from 1983 levels. Analyses of herbicide use data from Manitoba Crop Insurance Questionnaires indicates a continuing decline in the proportion of the crop treated with soil incorporated herbicides and a corresponding increase in the use of postemergent herbicides. Farmers continue to shift to the use of broad spectrum herbicides to control weeds such as wild buckwheat and annual smart-weed, species which cannot be contolled using MCPA or 2,4-D alone. The area treated with wild oat herbicides continues to increase, reaching 2.0 million ha (4.9 million acres) in 1984 compared to 1.9 million ha (4.75 million acres) in 1983.

Table 12
1984 Herbicide Use

Herbicide	Amount Used
2,4-D ester	63,900 kg
2,4-D amine	519,600 kg
MCPA ester	29,200 kg
MCPA amine	391,800 kg
MCPA Na & K Salts	45,400 kg
TCA and Dalapon	138,800 kg
Bromoxynil and Dicamba	544,600 kg
Wild Oat herbicides	1,851,000 kg
Other herbicides	704,900 kg

Weed Survey

A weed survey of alfalfa seed fields in Manitoba revealed that the three most common weeds were perennials — quackgrass, dandelion and Canada thistle, infesting 65 percent, 79 percent and 78 percent of the fields, respectively. Growers recognize these problems but are faced with a lack of effective control measures. Cropping histories of the fields surveyed indicate that a large number of the fields are established without the use of herbicides.

Regulatory

Permits for use of a total 4,366 L of Randox were issued to 12 onion growers in Manitoba. Savings to onion growers resulting from availability of Randox were estimated to be $140,000.

A total of 207 suspected herbicide injury samples submitted by farmers and homeowners were assessed. Thirty herbicide drift complaints were investigated under the Pesticides and Fertilizers Control Act. Staff delivered 24 technical presentations at 11 licencing courses attended by 530 pesticide dealers and applicators.

Soil And Water Management

The Soil and Water Management Section is responsible for soil management, including soil conservation, soil fertility, the Provincial Soil Testing Laboratory, on-farm water management and irrigation.

Irrigation

Forty eight applications for rebate assistance on irrigation were received with 40 being processed and nine carried over from last year, resulting in the issuing of 49 water rights licences. A total of 1190 ha (2,970 ac) came under irrigation; 660 ha (1,650 ac) being in cereal crops; 53 ha (132 ac) in strawberries; 396 ha (991 ac) in alfalfa; 50 ha (126 ac) in vegetables and 30 ha (74 ac) in trees. A total of $80,193 was paid out under the Irrigation Rebate program whereby new irrigators can receive a rebate amounting to 30 percent of development costs, to a maximum of $2,000.

Drainage

A field survey and drainage ditch design service was provided to farmers in the Manitoba lowlands and for water conservation in the uplands. Sixty-two quarter sections were surveyed and designs completed. Twenty-two quarter sections had water conservation projects through backflood irrigation or pothole consolidation incorporated into their design. Ten drainage surveying schools trained 82 farmers in the use of surveying equipment, design and construction of ditches.

Three factsheets on On-Farm Drainage, Designing Surface Drainage Systems and Subsurface Drainings were prepared and distributed. A nine part series of articles on water management was published in the Manitoba Cooperator and through Department media channels.

Soil Survey

The systematic inventory and evaluation of Manitoba soil resources is a continuing program supported jointly by Manitoba Agriculture and Agriculture Canada. The University of Manitoba, through the Department of Soil Science, provides office and laboratory space and administrative services related to special projects on behalf of soil survey. The major

function of the soil survey continues to be provision of essential soil resource data and related research and land evaluations. This is frequently required by provincial government departments representing a land use and planning function or a related administrative function.

The main emphasis of the 1984-85 inventory program focused on the detailed resurvey and land evaluation of selected areas in southern Manitoba. These resurveys at 1:20,000 scale provide detailed soil resource information to assist in the planning, allocation, and management of land resources for agriculture, rural residential planning and intensive outdoor recreational uses. Approximately 91,218 ha (225,300 ac) were surveyed at a detailed scale of 1:20,000 and 78,264 ha (193,300 ac) surveyed at a reconnaisance scale of 1:50,000. The projects included agricultural resurveys for special crop production, conservation, and irrigation in the municipalities of Dufferin, Grey, and Lorne; for planning and assessment surveys in the municipalities of Swan River, Springfield, and five rural towns; for Parks surveys along the Shellmouth reservoir and Assiniboine River corridor; and for Environment in the Inco-Spruce Point Mine area.

Interim reports and maps are being prepared for all 1984 projects. Interim soil reports were published for the Rural Municipalities of Westbourne, Pasquia Lake, Pine Creek, Pelican-Rock Lake, City of Brandon, Town of Roblin, Towns of Rathwell-Treherne-Notre Dame, Towns of Binscarth-Russell and Town of Ste. Rose.

Table 13
Soil Survey — Total Hectarage Covered

	1984-85	To date, March 31, 1985
Initial reconnaissance	—	18,617,436
Initial detailed survey	—	16,460
Detailed resurvey	91,218	1,907,268
Reconnaissance resurvey	78,264	78,264
Biophysical survey	—	12,521,000

The continuing program of detailed soil surveys was shared among requests from the provincial government Departments of Agriculture, Municipal Affairs, Natural Resources, and Environment.

There was continued development of automated data handling capability for all cartographic information and supporting soil and related landscape data compiled by the soil survey. This capability is designed to increase efficiency of the soil survey operation and to provide more quantitative soil data to users.

Land evaluation studies were continued, primarily in agriculture. The soil survey is involved in developing a data base for land evaluation, through the ongoing program of detailed resurveys and through long term monitoring programs of soil temperature, soil moisture and climate relations. Soil survey data provides input for the development of various soil-climate based crop growth and yield models, for quantitative agricultural land evaluation.

Land Use — Planning

Section staff and regional Land Resource Specialists represented agricultural interests in subdivision and land use issues relating to the Planning Act and Provincial Land Use Policies. Assistance and advice was given to planning districts and municipalities in the formulation of basic planning statements and development plans.

Investigative and consultative input was made in the areas of organic soil management, peat and stubble burning, Hydro transmission rights-of-way and compensation, highway routings, pipelines, rail line abandonment, sewage and sewage sludge disposal, land use guidelines for livestock operations, Clean Environment hearings and Municipal Board hearings.

Land Use — Management

Conservation Specialists participated in some 85 rural extension meetings and field days and conducted investigation/demonstrations at 33 sites throughout the province. Staff provide technical assistance to the Conservation Districts through participation on the District Soils Committees. They also participated in the school program by conducting educational field seminars on soils and land use and by taking part in a Department of Education conference that examined possibilities of including more agricultural content in the school curriculum. Staff contributed agricultural expertise to an Escarpment Headwater Control study involving PFRA and Water Resources.

In the fall of 1984 an intensive soil moisture survey was carried out resulting in a published map depicting soil moisture conditions at freeze up.

Provincial Soil Testing Laboratory

During the 1984-85 fiscal year the Provincial Soil Testing Laboratory processed some 27,600 samples, comprised of 26,640 soil samples and 960 tissue samples. This volume represented a 14 percent decline in total volume from 1983-84, attributable to the inclement weather in the fall of 1984, which virtually shut down all field sampling in mid-October.

Nineteen thousand soil and plant samples were submitted by farmers. The balance came from University research and department investigation projects.

Total revenue transferred to the Department of Finance from the laboratory was $179,177, down 14 percent from the previous year. Some $62,640 in non-revenue samples were processed. When this amount is added to the revenue samples the real value of work generated by the lab amounted to $248,900 for the 1984-85 year, down only four percent from the corresponding figure in 1983-84. This value is well in excess of the $207,500 operating cost for the laboratory.

Land Development and Planning

The prime function of this section is to advise on the agricultural use and development of lands, with special emphasis on lands held under Crown ownership. In this connection, section staff sit on the Crown Land Classification Committee where most action is carried out through existing committees and other governmental institutional arrangements. The consideration of agricultural interests in Crown land use allocation is entrusted to the Manitoba Agriculture representatives on the Crown Land Classification Committee.

Two detailed land use studies were undertaken during 1984. The Washow-Fisher Peninsula Study was carried out to determine the allocation of Crown lands on the peninsula. Of prime concern was the allocation of land for forestry, as the Forestry Branch wished to establish the Tommy Prinz Reserve.

The second land use study involved the Catfish Creek area where the main objective was the allocation of land for forestry, agriculture and wildlife. Two studies were carried out on land improvement and development, involving the Bellsite Drainage Evaluation Project and the Washow Bay Drainage Improvement Project. In the Bellsite case, a preliminary review was made of the requirements for an improved drainage evaluation. At Washow Bay, as part of an evaluation study on drainage improvements, information was provided on soil and vegetation types, which would be helpful in an economic analysis of the financial viability of drainage enhancement.

In the area of special projects, staff were involved in the Irwin Creek Project where resource data was gathered relative to the Fairford Indian Band wishing to acquire land in the Twin Creeks area of the Northern Interlake. Staff were also involved in the Livestock — Rural Resident Survey that was designed to evaluate the interactions between rural residents and livestock operations. Section staff were also involved as Department representatives on the Emergency Measures Organization for Manitoba. An early threat of flooding prompted the development of an Agricultural Response Plan which will be on-going. On-going appointments included departmental coordinator, assistant departmental coordinator and regional planning officers.

In other activity, the section was involved in an informal arrangement whereby the capabilities and constraints relative to micro computer use were evaluated as they apply to Manitoba Agriculture. Also under development, through an interdepartment committee, was an effort to assess the feasibility of establishing a Land Information Network Advisory Committee.

Agricultural Crown Lands

Land Use

Agricultural Crown Lands utilize .77 million hectares (1.9 million acres) for livestock grazing, hay production and annual cropping. The Crown Land Classification Committee (CLCC) has been active in processing land for the Crown Land Sale Program and the Local Government District Exchange Program.

Sale of Agricultural Crown Lands Under Lease

From the inception of the program in 1979 to December 31, 1984, there have been 1,806 applica-

Table 14
Transfers and Exchanges to December 31, 1984

	No. of Parcels	Hectares	Acres
Returned to LGD's	595	38,527	95,200
Sale to Lessee	154	9,972	24,640
Crown Land Exchanged	359	23,246	57,440
Crown Land Under Negotiations	70	4,533	11,200
LGD Land Exchanged	396	25,642	63,360
LGD Land Under Negotiations	75	18,972	46,880
LGD Land Under Agreement	1,427	92,400	228,320
Completed Appraisals	1,338	86,638	214,080

tions to purchase received. There have been 1,244 parcels deemed saleable, 521 parcels were deemed unsaleable, and 41 parcels have yet to be reviewed. A total of 835 parcels have been sold.

Local Government District Lands

A Local Government District Task Force was established in 1979 to negotiate with each Local Government District Council relative to the return, exchange or sale of Local Government District vested lands.

In cases where local government districts prefer to see their agricultural lands administered by the Department of Agriculture, they are included in an Agricultural Agreement between the Department and the local government district. These lands are administered under the same conditions as apply to Crown lands and are eligible for all programs, including the Crown Land Improvement Program.

Leasing and Permitting

Although the total number of Forage Lease dispositions decreased by 20 in 1984, the total acreage under Forage Lease increased by 1,383 hectares (3,418 acres). In 1984 there were 35 In-family Transfers of leases involving 174 parcels of land compared to 44 In-family Transfers in 1983, involving 186 parcels of land. There were also seven Unit Transfers in 1984 involving 37 parcels of land, compared to 15 Unit Transfers in 1983, involving 163 parcels of land. Voluntary surrenders were actioned on 94 leases comprising 172 parcels, and partial lease surrenders on 119 leases involved 199 parcels.

There were 34 leases involving 149 parcels cancelled for non-payment of rent, and four leases involving nine parcels cancelled for non-use.

Advertisement and Allocation

During the year, 414 quarter sections were advertised for lease or permit. Of these, 119 quarters received one application only, and 100 quarters received no response. Multiple applications were received on 170 quarters and 25 quarters were withdrawn from allocation.

Agricultural Crown Lands Advisory Committee

A total of 52 allocation appeals involving 93 quarters were heard during 1984. The appeal hearings resulted in 51 (55 percent) of the allocated quarters being upheld, 40 quarters (43 percent) of the allocated quarters were changed, and two quarters (two percent) were to be re-advertised and re-allocated.

Two appeals were heard by the Committee regarding transfer requests which the Branch denied. One transfer request was allowed and one transfer request was denied.

Five appeals against cancellation/non-renewal of forage leases were heard by the Committee. The committee recommended that three forage leases be cancelled. Decisions regarding two forage leases were deferred.

In addition, the Committee reviewed a cancellation appeal which had the decision deferred. It was recommended that the decision be further deferred to allow a transfer of the lease with the sale of private land.

Carrying Capacity of Grazing or Hay Lands

As of December 31, 1984, the total rated carrying capacity of all lands under Forage Lease was 632,038 animal unit months. In addition, lands under various types of annual permits had a rated carrying capacity of 65,721 animal unit months.

Table 15
Leases and Permits — 1984

Type	Number	Hectares	Acres
Forage Leases	2,645	646,027	1,596,310
Casual Grazing Permits	33	1,544	3,815
Renewable Grazing Permits	186	7,090	17,519
Renewable Hay Permits	1,221	65,758	162,487
Casual Hay Permits	450	24,210	59,822
Cash Rental Agricultural Lease	238	25,708	63,525
Lease Options	1	60	149
Special Leases	4	192	475
Totals	4,778	770,589	1,904,102

Crown Land Improvement Program

All development completed under this program in the 1984 calendar year was done by machine as chemicals were not used. Conditions were abnormally dry during the spring season making windrow burning hazardous and breaking more difficult. The fall season turned out exceptionally wet with an early snowfall, making winter clearing difficult. The large snow load further hindered clearing making it necessary to move large volumes of this snow. All available funds for this program were spent. In 1984, this program was made available to 188 new clients on 337 quarter sections, totalling $430,699. In addition, 800 clients were carried over from previous years on 1,695 quarters totalling $232,972. In 1984, there were 2,136 hectares (5,279 acres) cleared; 3,088 hectares (7,630 acres) were broken; and 2,874 hectares (7,102 acres) were prepared for seeding at a cost of $663,671.

Community Pastures — P.F.R.A. Administered

There are 24 community pastures covering 176,183 hectares* (435,348 acres)* in Manitoba. Patrons are charged a user fee to recover the annual operating cost of the pastures. Rates for 1984 were increased.

Table 16
Community Pasture Statistics

Operating pastures	24	
Hectares (Acres)	176,183	(435,348)
Carrying Capacity	41,800	
Patrons	1,113	
Cattle and Calves	59,858	
Horses and Colts	1,122	
Breeding Cows	17,174	
Losses	415	
Bulls (includes rental)	610	

*The reduction in area, 1,291 hectares (3,193 acres) compared to previous years is as a result of P.F.R.A. deleting water bodies and other unusable areas from their statistics. There has been no actual reduction in pasture sizes.

Other pasture and grassland projects included one co-op pasture and four grassland demonstrations. The Shoal Lake Hay and Grazing Co-op Ltd. is the only co-operative pasture in the Province. Comprised of 1,722 hectares (4,255 acres), it is located in the Interlake Region. The four grassland society projects in operation on Crown Land in 1984 involved 721 hectares (1,782 acres).

Tree Covered Rangeland Improvement Project

Since 1979, the Agricultural Crown Lands Branch has been charged with the responsibility of the financial administration of the Tree Covered Rangeland Improvement Project of the Canada-Manitoba Subsidiary Agreement on Value Added Crops Production (Agro-Man). Interest rebate assistance is provided to farmers who borrow money to develop their privately owned tree covered rangelands through the land development stages of clearing, breaking and seed bed preparation, which is usually a two year period.

During 1984, 15 clients borrowed a total of $158,845 for work undertaken under this program. This resulted in interest rebates of $56,247 on development work involving 396 hectares (978 acres).

Insect Control

Extension activities in entomology are carried out to make people more aware of safe, effective methods of pest management and the potential hazards which could result from the misuse of insecticides. Servicing enquiries from field staff, dealers, applicators and farmers requesting insect identifications and control information is a major activity during the growing season. Economic threshold guidelines and control recommendations were provided in various insect control bulletins. During the year, 25 issues of the Manitoba Insect Report were forwarded to approximately 1,200 persons advising on, or directly involved in, insect pest management. Field surveys were carried out on a regular basis during the growing season to provide early warning of potential infestation of crop pests.

Surveys and Monitoring

Grasshoppers — Staff carried out a province wide survey of adult grasshoppers in early August to gather data for the 1985 grasshopper forecast. The 1985 forecast indicates the area of infestation and severity will be approximately two and one half times greater than the 1984 infestation. The largest area affected will again be in southwest Manitoba, covering an area extending from Inglis to Boissevain to the Saskatchewan and U.S. borders. Large areas of infestation are also forecast in Central Manitoba in the area bordered by Neepawa and Brandon, extending east to Starbuck and Roland.

The department provided assistance to municipalities in control of grasshoppers on roadsides, drainage ditches and other public lands. The assistance was in the form of a rebate for the purchase of chemical

Table 17
1985 Grasshopper Forecast

	1985	1984
Light	10,260 km² (3,961 mi²)	4,092 km² (1,580 mi²)
Moderate	4,680 km² (1,807 mi²)	1,932 km² (746 mi²)
Severe	610 km² (236 mi²)	91 km² (35 mi²)

applied by the municipality or someone hired by the municipality. A total of $98,023.05 was paid in rebate to 29 municipalities.

Sunflower Midge — A total of 106 fields were surveyed for sunflower midge. The information was combined with similar data from North Dakota and Minnesota to produce an area report.

The range of the infestation remained the same as in 1984. It was confined to the Red River Valley between Morden on the west and Steinbach on the east. The intensity of the infestation, however, was substantially reduced. There were no fields which were severely damaged and only about 10 which were even moderately damaged.

Spruce Budworm — A total of 50 branch samples were collected from the resort area on the west side of Lake Winnipeg. The branches were examined for spruce budworm egg masses and the data used to produce the 1985 forecast.

These surveys indicated that a moderate infestation may be expected in the Riverton area and that light to moderate infestations may be anticipated in resort areas to the south.

Field Research — Damage assessment surveys were carried out to determine the effectiveness of control measures in reducing corn borer damage to field corn and to determine the economic impact of wheat midge on wheat yields in the Swan River area. Data collected indicated that control measures, when applied at the proper time, reduced European corn borer damage to very low levels. Wheat midge damage assessments indicated that although damage occurred, less than 10 percent of wheat fields surveyed in the Swan River area suffered any economic loss in production.

Pesticides Control

A total of 889 retail pesticide dealers and 211 commercial pesticide applicators were licenced in 1984 under the Pesticides and Fertilizers Control Act. The qualifications for licencing were the attendance at training courses and successful completion of written examinations. Dealers and applicators are being recalled to courses after four years to requalify for licencing.

Dealer and Applicator Training — Five pesticide dealer/applicator short courses were held in early 1985, attended by 176 dealers and 255 applicators. Dealers and applicators completed supervised written examinations at the courses to qualify for licencing. Separate training and examinations were held for two pharmacists, in co-operation with the Manitoba Society of Professional Pharmacists, and for 16 veterinarians in co-operation with the Manitoba Veterinary Medical Board. Training courses for applicators included aerial, ground, rights-of-way and landscape pest control.

A total of 28 dealers completed examinations for "Provisional" Pesticide Dealer's Licences, to be renewed only by completing full requirements for licences. Eight applicators were licenced on a provisional basis.

Dealers and applicators were provided regularly with updated educational material on the control of insects, weeds, plant diseases and vertebrate pests.

Enforcement — Approximately seventy unlicenced dealer outlets were contacted because of selling pesticides in violation of the Act. All cases were resolved and no dealers were prosecuted.

Twenty-two investigations were made into alleged drift damage to crops, shelterbelts and gardens. Twenty involved aerial applications and two involved ground applicators. All complaints except one involved herbicide damage.

Pesticide Residue Testing Program — The monitoring program for pesticide residues in agricultural products was terminated because of budget constraints. It had been in operation since 1963.

Cholinesterase Blood Tests — The testing program for blood cholinesterase was offered again to licenced pesticide applicators and others handling pesticides for extended periods of time. The tests are one aspect of safety in applying pesticides.

There were 22 participants and a total of 73 blood samples were analyzed by personnel at the Cadham Provincial Laboratory. There were no participants who required any further action as a result of low cholinesterase blood levels.

Training and Development

Farm Management

Farm Management activity was designed to improve the efficiency and growth of farm business through the provision of farm business management services, by developing resources and by extending available information to staff and farmers.

Major inputs were directed towards the development and production of material for the Farm Business Group training courses. A series of five lessons were produced along with audio-visuals and training and student manuals. An in-service training course was conducted with 70 staff. They in turn, organized 42 groups, presenting the instructional material to approximately 600 farmers and farm couples.

A number of agricultural software decision-making programs were developed and utilized by staff in counselling and advising farmers. Further refinement and additional programs are to be developed and tested to meet the present demand.

The new farm account book was revised, renamed and turned over to an outside agency for production and marketing. Many revisions were made to facilitate recording and analysis.

Guidelines and worksheets for budgeting and projecting farm financial statements were designed and revised. Thirty thousand copies of cost production guidelines on 11 enterprises were distributed to farmers. In addition, six worksheets on partial budgets and financial statements were designed and used to assist staff and farmers in planning and budgeting.

Discussion papers were prepared for either public, staff or internal use on Agro-man's soybean cost of production projects, economics of semi-dwarf wheat, debt-carrying capacity of farmers, pasture costs, debt-survey results, use of computers and production.

Investigations, reports and projects were carried out on a number of issues, including the extent and seriousness of farmers in financial difficulties, tax issues in agriculture, section 31 of the Income Tax Act and its effect on farmers, financial analysis, and usefullness and practicality of agricultural computer programs. Comprehensive guidelines on Agri-food projects were written and presented to program advisor committees for further consideration.

Extensive production went into developing course materials for the new program of Farm Business Groups. Five lessons were produced for the first year groups and an additional two researched and drafted. In addition, considerable course material was drafted for the second year of the program. Additional resources were developed for the Beef '85 homestudy course and six publications were researched and produced on legal matters and sources of credit.

Farm managemnt staff were responsible for planning in-service training in financial counselling, computers and general farm management areas. Computer training was also combined with training for the Beef Consult and Farm Business Group programs. Twenty agricultural computer software programs were evaluated and assessed as to their suitability for staff use. Most require further improvements and modifications before they can be used by all staff. Plans are underway to expand the agricultural computer programs, with emphasis on actual analysis and planning.

Further research took place in other areas: implication of taxation legislation, capital gains tax, part-time farmers, financial management, pasture costs, beef economics, semi-dwarf wheats, comparative cost of alternative crops and capital costs.

During the year viability assessments were completed on 33 potential immigrant farms. This provided information for the Federal Department of Immigration in their determination of the suitability of applicants.

During the year staff members were involved in various capacities with the Manitoba Indian Agricultural Program, the Agricultural Economics Committee on Professional Update Training, the Agri-Food subcommittee on Human Resource Development and the Western Farm Management Extension Committee. The Section hosted the annual seminar for the latter group. The theme centered on counselling farmers in serious financial trouble. Fifty professionals from various agencies attended.

Agro-Man Project 202 — Soybeans

The final survey and economic evaluation of soybean production was completed and distributed. Results indicated it is profitable to grow soybeans under excellent management and in small pockets in the Province. However, more research is required to develop a higher yielding variety with less risk.

Beef Consult

"Beef Consult" was a newly developed advisory service aimed at beef producers wanting to improve their efficiency and profitability. Ten regional staff were trained in the program, and in turn, trained other regional staff. The computer program involved was revised and streamlined to improve its usefulness. The program was officially launched in January. Beef producers can avail themselves of the service through their agricultural office or the Farm Management Section.

Regional Activity

Economic conditions causing reduced farm net income and restricted cash flow brought about a

dramatic increase in the demand for farm management services throughout the year. Farm Management Specialists and Agricultural Representatives responded to this need by increasing all extension activities that would help to enhance the financial management skills of farm operators. Staff found themselves being more and more involved in in-depth financial counselling. In the Northwest this meant 293 in-depth sessions, 141 in the Southwest, 105 in the Interlake, 159 in the Eastern Region and a like amount in the Central Region. The majority of these in-depth consultations were with farmers in serious financial difficulty and topics covered included preparation of a current net worth statement, examination of previous records to check on past production, preparation of income and expense statements and budgeting and analysis of the various options available.

During the year more and more of the rural offices were equipped with micro-computers. This greatly facilitated the development and delivery of many of the farm management programs providing an improvement in both quality and efficiency of service to clients.

The new Farm Business Group program made a significant start during the year. All regions were active in this activity with each reporting seven to nine groups and a total regional enrollment of about 100 farm families. The concept of the Farm Business Groups was readily accepted and indications were that this kind of enthusiasm would carry into the second year of the program.

The Beef Consult Program was also initiated during the year. However, because of the large staff time required in this activity it was started on a pilot basis. This limited experience indicated the detailed counselling of the farmer client in the program was most beneficial for the farmer and should be continued.

In other farm management related activities regional staff were very active in programs on production economics, with emphasis on production costs and selecting the most favorable enterprise for a given farm.

4-H and Youth

The objective of the 4-H program is to promote leadership, citizenship, responsibility and independence in young rural and northern Manitobans through achievement in skill development projects.

The 4-H structure is strong, networking from the grassroots level to a national organization. Volunteer councils exist at the district, regional and provincial levels, with national representation on the Canadian 4-H Council. These councils address programming needs for their specific area. Manitoba Agriculture staff which include Program Assistants, Agricultural Representatives, Regional 4-H Specialists and staff in the Winnipeg 4-H office provide support to their respective councils.

Provincial Activities

The central 4-H office is responsible for co-ordinating all provincial, national and international activities. The office also provides support to district and regional 4-H staff, while directly supervising the Northern 4-H program.

Manitoba 4-H Council provides volunteer input into provincial 4-H programs and policies, as well as initiating new projects and events. The council, regionally represented by six 4-H leaders and six 4-H senior members, and two government representatives, has three major goals. They are:

- to improve volunteer participation, development and learning
- to enhance national and international 4-H relationships
- to encourage participation and support from corporate sponsors.

Volunteers and staff planned and implemented 25 provincial and national events involving over 400 members and 150 leaders. Over 100 leaders, senior members, out-of-province delegates and staff attended the annual meeting of the Manitoba 4-H Council.

The Manitoba 4-H Council volunteer training program for both project and head leaders was active in the districts. In 1984/85 over 100 4-H leaders completed the training sessions and were recognized through certificates. Initial promotion of the Junior Leader project was accomplished by publishing an honor roll in Contact, listing 91 junior leaders who completed the 1983/84 year. Two hundred and fifty Manitoba 4-H leaders were recognized through Canadian 4-H Council Leadership certificates, and over 50 4-H leaders were invited to the Premier's reception for Volunteer Week.

Manitoba 4-H Council, with assistance of corporate sponsorship and club donations, provided travel opportunities for 128 members and 56 leaders, both within and outside the province. Manitoba 4-H members and leaders travelled to Ontario, Saskatchewan, British Columbia, Quebec, Michigan, Washington D.C., and North Dakota. As well, members and leaders travelled on a variety of Open House Canada exchanges.

Other provincial 4-H events that are offered to members included: Provincial 4-H Dairy Show, Provincial Livestock Judging Competition, Clothing

Speaks Conference, Provincial 4-H Sugarbeet Achievement, Provincial Public Speaking Competition and Provincial 4-H Horse Show and City Survival Weekend.

The Manitoba 4-H Foundation was officially launched during the year to provide an opportunity to individuals, organizations and companies to contribute financially towards expanded opportunities for 4-H members and leaders. The board has set a goal of $1.5 million in 3 years and is releasing a promotional campaign to achieve that goal.

Manitoba 4-H Council has been very active in International Youth Year activities. As well as finalizing plans for 4-H International Youth Year events, 4-H was involved in the official opening ceremonies for International Youth Year at the Manitoba Legislature.

Two Manitoba 4-H'ers were awarded scholarships, one of $1,000 from the Canadian National Exhibition and one of $500 from Hoechst Canada.

Manitoba 4-H Council adopted a new promotional slogan "4-H — for Friends, Fun and Learning". The Minister of Agriculture officially declared November 5-10 Manitoba 4-H Week. Promotional efforts were assisted by the provision of pencils, buttons, placemats, balloons, radio and newspaper releases and invitation cards.

The Community Services Project Competition experienced a facelift. The name was changed to "Commerce and 4-H . . . Caring for the Community", with improved guidelines and resources. The winning club was the Baldur 4-H Club, awarded a two day trip to Winnipeg.

Manitoba 4-H Ambassadors, now active for some seven years, boasts a membershp of 25 ex 4-H'ers. As well as participating and and assisting with district and regional activities, the Manitoba 4-H Ambassadors are responsible for the Provincial 4-H Public Speaking Competition, City Survival Weekend and their Annual Retreat.

Six thousand copies of the tri-yearly magazine Contact were produced and distributed, along with the production of 500 copies of the Manitoba 4-H Review.

The Winnipeg 4-H office continues to assist with the Manitoba Rural Youth Association, being actively involved in the planning committee of the National Rural Youth Conference.

4-H Projects

The Department supplies over 69,000 copies of project manuals, record books and resource material to a project enrollment of 6,474. Manitoba 4-H has 5,948 members in 313 clubs, an increase of 124 members and two clubs over the previous year. They are guided by 2,120 adult volunteers, an increase of 80.

New materials provided during the year included:

Dairy:	Beginning Dairy, Senior Dairy and Dairy Project Books were developed, printed and distributed.
Beef:	Production and Marketing (Unit 3) slide/tape sets and lesson material were made available.
Clothing:	Clothing V was printed and distributed
Woodworking:	Units III and IV were prepared for use in Manitoba. A woodworking record book was developed and printed.

Manitoba 4-H staff were involved in a wide variety of training activities including: a Western Provinces 4-H Staff meeting, regular 4-H specialist meetings, provincial 4-H update, new staff training, winter extension school, effective management and time management courses, a supervisory skills program, the national 4-H conference and the annual meeting of the Canadian 4-H Council.

Northern 4-H Program

The northern 4-H program boasts a membership of 536 supported by 91 leaders in 4-H clubs located in Gillam, Pukatawagan, Shamattawa, Split Lake, Thompson, York Landing, Carrot Valley, Cormorant, Easterville, Flin Flon, Grand Rapids, Snow Lake, The Pas and Wanless.

Northern 4-H members are enrolled in a variety of projects including beadwork, trapping, book-making, make-up and grooming, quilting, as well as the other regular 4-H projects.

In addition to their local project meetings, members participated in a variety of regional and provincial activities including: the Moak Lake YMCA Camp, the Junior Members Conference on Health and Fitness, Northern Regional and Provincial Public Speaking Competitions, the Winnipeg Senior Members' Conference, the Brandon 4-H Horse Show and the Provincial Livestock Judging Competition. Workshops were held in the region on such topics as public speaking, clowning, horsemanship, news reporting and meeting management. Leader training and development and recognition continued to be an important aspect of the Northern 4-H program. Highlights of this activity included: the Thompson Leaders' Weekend, Leader Association meetings and training, and northern leader representation at the annual meeting of the Manitoba 4-H council and the Northern 4-H Leaders Conference in Ottawa. The Northern Region also hosted the Discover Manitoba 4-H Tour group consisting of 36 4-H award winning leaders.

Regional 4-H Activity

All regions carried out an extensive and comprehensive program at the district and regional levels. Activities were varied and wide ranging for a provincial membership that remained about stable in numbers. Included in the general activities were sporting events, camps, rallies, member training, leader training, travel programs and the basic project work. All regions reported a high level of activity in 4-H throughout the year.

In the Northwest region 1,013 members in 46 clubs carried out their programs under the guidance of 421 volunteer leaders. Project work continued to be the mainstay of the program, with other emphasis on communication and leadership training. All workshops, rallies and local and district competitions were successful, aided by the assistance of an active 4-H council.

Seven rallies highlighted the year for 1,643 4-H members and 588 leaders in the Southwest region.

Table 18
Manitoba 4-H Statistics

Project	1984	1983
Group Determined	521	192
Babysitting	—	147
Adopt-A-Grandparent	61	66
Mechanics	205	242
Beef	898	914
Dairy	110	77
Horticulture	101	137
Junior Leader	105	95
Light Horse and Pony	660	783
Cereal Crops	39	46
Outdoor Living	197	177
Exploring 4-H	305	303
Sugar Beets	58	45
Swine	36	40
Woodworking	526	443
Photography	165	168
Dog Care and Training	—	57
Power Toboggan	—	17
Self Determined	68	113
Home Nursing	—	22
On Your Own	49	33
Clothing	968	996
Foods	815	738
Home Design	92	91
Handicrafts	475	468
Leathercrafts	—	41
Others	—	52
	6454	6406
Number of Male Members	2109	2153
Number of Female Members	3839	3671
TOTAL NUMBER OF MEMBERS	5948	5824
Number of Clubs	313	311
Number of Leaders	2120	2040
Number of New Leaders	715	700
Number of New Members	2108	2032
Average Age	12.0	12.1
Average Tenure	2.9	2.9

Some emphasis was placed on the areas of communications and leadership development and a number of training conferences were held during the year. The Southwest Horse Leaders' Association enjoyed another successful year with programs including regular meetings, clinics and two regional horse shows. Staff in this region continued to pioneer the development of audio visual instructional techniques for beef club members.

One of several objectives of the 4-H program in the Central region was to assist youth in their personal development, by providing special programming in communications, coping with stress, meeting management and career planning. A number of programs were carried out to achieve this, along with an active program on projects, leader development and program planning for all levels from local to national.

In the Interlake region some 800 members in 50 clubs operated an active program climaxed by three rallies in the region. Department staff were greatly assisted by five district councils, one regional council and an active Regional Horse Leaders' Association. The local and regional 4-H program enjoyed extensive media coverage throughout the year, with many of the reports submitted by club reporters.

As in the other four regions, enthusiasm and commitment continued to characterize the activities of 587 members and 199 leaders in 34 clubs in the Eastern region. An active year was reported, with five district councils involved in on-going activities. Two rallies were held in the region, along with the usual meetings, seminars, conferences and competitions. A new competition involving demonstrations was tried successfully during the year. Other programming included a one day 4-H Executive Day where members were coached on the roles of the various officers in an organization.

Rural Home Economics Services

Home Economics services are delivered in rural Manitoba by 17 Home Economists working in Manitoba Agriculture. The Home Economics Section, Manitoba Health, provides teaching resources, technical support and staff training for the field Home Economists. Through a team approach, field staff and seven program specialists develop, implement and evaluate educational programs for identified clientele. Program emphasis is placed on family resource management, nutrition, and basic living skills, to assist these clients in obtaining maximum benefit from their money, food, clothing and shelter.

The major target groups for preventive and remedial skills in the Home Economics program areas are young families, farm families, elderly, and persons of low socio-economic status. Any person requiring crisis intervention, financially, or nutritionally, receives help. During the 1984-85 year, 58,678 rural Manitobans were reached with Home Economics services.

Planning programs to meet the needs of each community in the area is a major challenge for the Home Economist. Identification of community needs is facilitated through regular meetings with extension program committees and farm women's organizations. These advisory groups contribute community involvement in determining program direction, and support the staff in marketing the Home Economics Program.

In co-operation with the advisory groups and other Manitoba Agriculture staff, the Home Economist has planned regional and district seminars for rural women and/or families, focusing on farm family relationships, stress and financial topics.

Financial Management

Family Resource Management programs implemented by Home Economists in the province emphasized the selection, protection and use of financial resources in ways that contribute to family stability and personal fulfillment. In 1985, the financial management home study course "Only You Can Mind Your Money" was offered for the second year. Approximately 500 participants completed the course. The evaluation following the first course provided documentation for the need for financial management information, as well as evidence of the effectiveness of teaching money management using the home study approach. Home Economists provided follow-up to the course with individual counselling and seminars or workshops on specific financial management topics for the participants.

There has been increased community awareness of the Home Economist's expertise as a source of financial management information and services in the areas of planning, spending, managing purchases and dealing with financial problems. Individuals in financial crisis have been referred to the Home Economist by Agricultural Representatives, Farm Management Specialists, local financial institutions, health professionals, Community Consumer Credit Counselling Services and the Bankruptcy Office.

A variety of methods are used by the Home Economist to transfer financial management information: one-to-one counselling with people in financial crisis; single sessions, seminars or workshops on budgets, record keeping, filing, wills, insurance, estate planning, consumer law, income tax, values and goals, credit, women and finances, kids and money; and courses that include several of the above topics. Sessions were presented at farm business groups, premarriage classes, high school classrooms, 4-H con-

ferences and leader training, and Women's Institute, church and community groups.

The Home Economist has worked with the Agricultural Representative and Farm Management Specialist to plan and team teach financial management programs. Farm business groups were the focus this past year.

Nutrition

Nutrition education programs presented by Home Economists help Manitobans to improve and maintain food habits to attain optimum nutritional status within their economic means.

The pregnant woman continues to be the focus for preventive nutrition programming. Prenatal and early-bird nutrition classes continue to be an effective method of disseminating nutrition information to promote eating habits that will aid in producing a healthy baby. Post partum classes, post natal mailbags, infant feeding classes, breastfeeding inservices and child health clinics continued as vehicles for teaching new parents about up-to-date recommended feeding practices. Consultation was also provided to doctors and Public Health Nurses.

The revision of the Day Care nutrition standards increased the need for training day care directors and co-ordinators. In addition, field staff have presented workshops on the rationale for the nutrition standard, eating habits of young children and menu planning. With implementation of the Health curriculum in schools, inservice nutrition education workshops for teachers continued throughout the province.

Weight reduction counselling and training was provided through community groups. The promotion of safe food preservation involved workshops, fair displays, publication distribution and consumer inquiries. Food preparation courses were offered which teach homemakers to serve nutritious, economical meals to their family. Other nutrition related educational programs presented this year included food buymanship, menu planning, heart health information and nutrition for seniors.

Clothing

The Home Economists provided clothing programs aimed at helping consumers to reduce clothing costs for families. This involved wise clothing purchases and proper care and maintenance of garments to maximize their wear life and decrease clothing expenditures.

Clothing construction seminars and courses were offered in the areas of fitting pants and dresses, children's clothing, jogging suits, swimwear and aerobic wear, lingerie, basic blouses and tailoring. Seminars on wardrobe planning, sewing shortcuts and sewing machine repair and maintenance were popular with groups.

Clothing and textile buymanship, construction and care information was provided to Manitobans through consumer inquiries, news releases, newsletters and television programs. Home Economists provide consultation and training to 4-H clothing project leaders and members.

The Clothing and Textile Specialist provided strong support to the Home Economist through research, consultation, training, program delivery and some direct client service. The newsletter "Shopping in Manitoba — Clothing and Textile Tips" was developed and distributed bi-monthly to Home Economists staff and per diem educators.

Housing

Housing programs focused on stretching the housing dollar and saving energy. Housing News, a quarterly newsletter published by the Housing Specialist, Home Economics Section, continued to be distributed by the Home Economists to housing educators, retailers and others concerned with housing issues. Seminars on wood heat selection, installation and safety, furnishings for savings and cutting housing costs were offered. Home Economists responded to consumer inquiries related to housing appliance selection and an increasing number of requests for remodelling information.

4-H Support

Home Economists continue to be actively involved in the 4-H program which reaches rural youth and develops community leadership.

Home Economists provide support to Program Assistants, 4-H members, leaders and parents. They are involved in 4-H promotion, leadership training programs, new project training, meeting and project management workshops, achievement judging, 4-H rallies, district councils, regional and provincial conferences and summer camps.

Media

Home Economists use mass media extensively and effectively to increase awareness and transmit home economics information to the public. All Home Economists provide weekly columns to local newspapers. Radio spots are produced by the staff in Northwest, Southwest and Eastern regions, and by other staff as the opportunity arises.

Southwest and Northwest Home Economists contribute regularly to the weekly television program "Take Time". Other Home Economists use the programs in their areas on cable television. Tapes from

these programs have also been used by the Home Economist in small group settings.

Regional newsletters produced by Interlake staff (Around Home In Ten) and Central staff (On The Home Front) extend home economics information to a wide regional audience. Newsletters are prepared by some Home Economists for special groups in their districts, e.g., newsletter for parents of toddlers.

Agricultural Extension Centre

The Agricultural Extension Centre, located in Brandon, continued to coordinate adult education and extension training activities for many rural Manitobans. Office space was provided for Manitoba Agriculture's south-west regional staff plus central specialists in dairy, conservation and the Manitoba Beef Commission. A wide range of government and other organizations used the facilities for educational meetings.

The average number of farm men and women attending the 24 seminars held during 1984-85 at the Centre was up 10 percent to 130 per course. The number of courses decreased due to a broadening of the Principal's job responsibilities.

The Ag Centre continues to play a vital role in the agricultural life of western Manitoba. Nearly 24,000 people attended 720 meetings during the year. Figures for meals served and rooms occupied were up significantly from the previous year.

Course instructors for Ag Centre programs came from Manitoba Agriculture, Ag Canada, Universities of Manitoba and Brandon, as well as from out-of-province. Farmer speakers provided practical input to many sessions. Three courses specifically designed for farm families drew an average of over 100 people each. On-farm video taping allowed the large audience attending the computer workshop to see equipment in action in farm home offices. The annual Beef Cattle Seminar highlighted cost cutting aspects in the livestock industry. The Centre attempts to get audience reaction to each course and acted on last year's questionnaire results by increasing the course registration fee to $5. Media serving the province provided excellent publicity and outreach for the courses at the Centre. The Ag Centre was involved in initiating a Friday morning series on CKX radio involving farm women on timely topics. Course summaries were provided for most sessions and video taping of outstanding resource people helped to build a useful video library for staff training and farm meetings.

Agricultural Manpower

This service is administered through the Federal/Provincial Agricultural Employment Development Agreement, which remains in effect until March, 1986. Some general direction for the Agricultural Manpower Officer comes through the Manitoba Agricultural Employment Development Committee established under the agreement. Regular contact and cooperation with regional personnel at both the provincial and federal level is maintained.

More specifically, duties related to the committee's mandate include:

1) Cooperate in a coordinating role with regional personnel of both governments, for the approval and monitoring of agricultural training occurring on the job through the General Industrial Training Program. Further, the agricultural manpower staff person is responsible for all General Industrial Training programs that are contracted through the Manitoba Indian Agriculture Program.
2) Participate in determining supply and demand for agricultural labour; participate in determining training needs to match the employment opportunities.
3) Participate in meetings, seminars, or studies relating to the training needs of farmers, particularly in personnel management; and to assist in the preparation and initiation of appropriate training and resources.
4) Liaison and cooperation with Manitoba Agriculture and Department of Education personnel in assessing content of training programs and appropriate locations for delivery.
5) Review, print, and distribute guidelines and information on employment standards, employer/employee relations, personnel management and workers' compensation as related to the agricultural workplace.

Agricultural Training

The Canada Manpower Training Program (C.M.T.P.) is applied to training programs developed and delivered for agricultural labour or for an Applied Agricultural Course offered through Assiniboine Community College (A.C.C.). Manitoba Agriculture has some responsibility for reviewing the production content of these courses.

Table 19

1984-85 Canada Manpower Training Program — Agriculture

Course	No. of Courses	Attendees
Applied Agriculture	4	60
Dairy Herd Worker	1	10
Farm Worker — General	2	24
Farm Equipment Operator	1	10
Introduction to Agriculture	1	8

Unsponsored Training Courses

Agricultural production courses for farmers requested through Agricultural Representatives resulted in about 300 farmers and 30 farm workers participating in various courses.

Courses offered included: Agriculture for New Canadians, Small Engine Repair, Electrical, Grain Marketing and Stress on the Family Farm (teleconferencing). As well, the Manitoba Indian Agriculture Program requested 10 short courses on topics such as forage production, beef production and Programs for Rural Women.

Offshore Workers

For 1984, 29 Mexican workers worked on three vegetable farms in the Portage la Prairie area. Each year, the growers wishing to import labour and the Manitoba Farm Workers' Association meet and agree on a joint recommendation to the provincial and federal governments as to how many offshore workers will come into Manitoba.

Agricultural Exchange Program

The International Agricultural Exchange Association (I.A.E.A.) had 83 trainees on Manitoba farms in 1984. Upon their arrival in Manitoba, in early April, they attended a five-day orientation seminar. The seminar, held in Gimli, introduced them to Canadian agricultural practices, customs and laws. The trainees then proceeded to live and work on host family farms until October, with the exception of a three or four-week vacation to tour North America.

Agricultural Societies

In 1984 there were 64 active Agricultural Societies in Manitoba continuing an 80 year contribution to the successful development of rural agricultural communities.

Since 1979, Manitoba Agriculture has recognized Centennial Agricultural Societies with the presentation of bronze plaques commemorating the occasion. In 1984, the following Agricultural Societies received such awards: Virden, Souris and Shoal Lake.

The Department provided support to Agricultural Societies in 1984 through various grants as follows: Buildings & Improvements $119,700; Prize Money $225,600; 4-H Activities $13,000; Judges $41,900; and Memberships $7,300. Livestock entries were down in some districts, but most agricultural society fairs reported a successful year. The King Farmer Competition was held in various locations and attracted considerable interest. It was noted that interest in educational agricultural events such as workshops & seminars increased in 1984.

Once again, Manitoba Agriculture assisted with a prize money grant in the amount of $5,500 for the Canadian Western Agribition held in November at Regina.

Annual Conference

The 3rd annual provincial Agricultural Society Conference was a two-day meeting held at the Agricultural Extension Centre. It was attended by some 160 delegates. Focus of the program was on improving communications between rural and urban populations.

The first Canada Packers Quilt Competition was held in conjunction with Manitoba Agriculture in 1984. Fifty-one quilts were judged at the time of the provincial conference and the first winner was Mrs. Thruda Floyd of Arborg. Mrs. Floyd's quilt was purchased by Canada Packers for $700 and donated to Manitoba Agricultural Societies as the first of an ongoing collection of competition quilts.

Bursaries

Two bursaries are awarded yearly by the Agricultural Society Advisory Board through donations from Agricultural Societies. The Evelyn Ames Bursary in the amount of $500 was awarded to first year Human Ecology student Lori Bryant of Russell. The N. C. MacKay Bursary was awarded to Leslie Jean McKerlie, Morden, a first year Agriculture student.

Manitoba Agricultural Museum — Austin

The Manitoba Agricultural Museum at Austin attracts visitors from all parts of the world through the summer months. The four-day Thresherman's Reunion held yearly in late July is the culmination of the efforts of many local residents interested in maintaining and preserving some of the early methods of farming.

Revenues from the reunion and casual visitors assist in maintaining the Museum, but substantial grants are necesssary to maintain and develop the Museum. Manitoba Agriculture provided grants in the amount of $123,600 in 1984, to assist with operation and maintenance.

Manitoba Agriculture Hall of Fame — Brandon Keystone Centre

The Hall of Fame was established in 1976, to formally and publicly recognize individuals who have made outstanding contributions to the improvement of agriculture and rural living in Manitoba. Manitoba Agriculture assists with the financing of the Hall of Fame by providing an annual grant of up to $12,400 and paid on a matching two for one formula. When the Hall of Fame raises funds from other outside sources, in the amount of $6,200, the department then pays the total grant of $12,400.

Keystone Centre — Brandon

Built in 1973, the Keystone Agricultural and Recreational Centre serves the agricultural, recreational and entertainment needs of Brandon and surrounding districts. Each year the Provincial Exhibition uses the facilities for the Royal Winter Fair, Provincial Exhibition (summer fair) and Ag Ex (fall fair). Livestock Breed Associations and individual producers also use the Keystone Centre for shows and sales thoughout the year.

Under the Keystone Agreement the Province of Manitoba and the City of Brandon share equally in any operating deficit. In 1984 the operating deficit was $97,949, making the provincial grant $48,975.

Horse Race Meets

During the year, harness horse racing meets were held at Portage la Prairie, Wawanesa, Carman, Virden, Dauphin, Rossburn, Russell, Minnedosa, Killarney, Holland, Glenboro, Deloraine, Crystal City and Carberry. Each Society was supported to a maximum of $10,000 per day. This was made possible through the retention of monies collected from pari-mutual betting, plus a supplemental grant of two and one-half percent of the total betting pool. The total supplemental grant was $26,775. The pari-mutual tax retained was $80,325.

The Manitoba Women's Institutes

The Manitoba Women's Institutes involved a membership of 1,848 active members in 1984, located in 109 Institutes throughout the province. The Women's Institutes provided valuable family and community educational and social programs to its members.

The provincial board works very closely with the Home Economics Directorate and in the field with District Home Economists, providing leadership and social support in many areas of general need and concern.

Manitoba Agriculture's grant to the Manitoba Women's Institutes in 1984 was $31,900.

Manitoba Farm Vacations Association

Organized in 1972, this association through its 60 active host families, offers prospective vacationers an opportunity to enjoy first hand, rural mid-western hospitality.

Host farms offer a wide selection of what farming is all about, ranging from large cattle ranches or major dairy operations, to grain and mixed farms of all sizes. Involved farm families supplement farm income in a small way and enjoy the social interaction.

During 1984, the 60 active host families in Manitoba hosted 9,705 farm guests. School tours numbered 300, with over 19,200 students visiting host farms. During 1984, the Farm Vacation Association received a provincial grant of $23,700.